

# PUBLICATIONS

of

## MANUEL CARDONA

Max-Planck-Institut für Festkörperforschung

Stuttgart, Germany

1. A quadratic PEM effect in germanium  
M. Cardona and W. Paul  
*J. Phys. Chem. Solids* **7**, 127 (1958).
2. Dielectric constant of germanium and silicon as a function of volume  
M. Cardona, W. Paul, and H. Brooks  
*J. Phys. Chem. Solids* **8**, 204 (1959).
3. Temperature dependence of the refractive index and the polarizability of some III-V semiconductors  
M. Cardona  
Proceedings International Semiconductors Conference, Prague, 1960  
(Publishing House of Prague Academy of Sciences, Prague, 1961) p. 388.
4. Pressure dependence of the direct energy gap in germanium  
M. Cardona and W. Paul  
*J. Phys. Chem. Solids* **17**, 138 (1960).
5. Dielectric constant measurements in germanium and silicon as a function of temperature and pressure  
M. Cardona, W. Paul, and H. Brooks  
in *Solid State Physics in Electronics and Telecommunications*, Vol. I  
(Academic Press, New York 1960), p. 206.
6. The temperature and doping dependence of the free carrier polarizability in germanium and silicon  
M. Cardona, W. Paul, and H. Brooks  
*Helv. Phys. Acta* **33**, 329 (1960).
7. Oscillations in germanium with an applied pulsed electric field  
M. Cardona and W. Ruppel  
*J. Appl. Phys.* **33**, 1826 (1960).
8. Optical investigation of the band structure of GaSb  
M. Cardona  
*Z. Physik* **161**, 99 (1961).
9. Optical determination of the conduction band structure of GaSb  
M. Cardona  
*J. Phys. Chem. Solids* **17**, 336 (1961).

10. Optical studies of the band structure in InP  
M. Cardona  
*J. Appl. Phys.* **32**, 958 (1961).
11. Electron effective masses of InAs and GaAs as a function of temperature and doping  
M. Cardona  
*Phys. Rev.* **121**, 752 (1961).
12. Fundamental reflectivity spectrum of semiconductors with zincblende structure  
M. Cardona  
*J. Appl. Phys.* **32**, Suppl., 2151 (1961).
13. Voigt-Effect in Semiconductors  
M. Cardona  
*Helv. Phys. Acta* **34**, 796 (1961).
14. Effect of temperature and doping on the fundamental reflectivity of Ge  
M. Cardona and H.S. Sommers, Jr.  
*Phys. Rev.* **122**, 1382 (1961).
15. Reflectivity of gray tin in the fundamental absorption region  
M. Cardona and D.L. Greenaway  
*Phys. Rev.* **125**, 1291 (1962).
16. Reflectivity measurements in InSb-In<sub>2</sub>Te<sub>3</sub> and InAs- In<sub>2</sub>Te<sub>3</sub> alloys  
D.L. Greenaway and M. Cardona  
Proceedings Exeter Conference on the Physics of Semiconductors, 1962 (The Institute of Physics, London, 1962) p. 666.
17. Excitons at the L absorption edge in zincblende-type semiconductors  
M. Cardona and G. Harbeke  
*Phys. Rev. Lett.* **8**, 90 (1962).
18. Faraday rotation in semiconductors  
M. Cardona  
in *Festkörperprobleme* (F. Vieweg and Sons, 1962).
19. Optical properties of the silver and cuprous halides  
M. Cardona  
*Phys. Rev.* **129**, 69 (1963).
20. Reflectivity of semiconductors with wurtzite structure  
M. Cardona  
*Phys. Rev.* **129**, 1068 (1963).
21. Band parameters of semiconductors with zincblende, wurtzite and germanium structure  
M. Cardona  
*J. Phys. Chem. Solids* **24**, 1543 (1963).
22. Fundamental reflectivity and band structure of ZnTe, CdTe, and HgTe  
M. Cardona and D.L. Greenaway  
*Phys. Rev.* **131**, 98 (1963).
23. Absorption spectrum of germanium and zincblende-type materials at energies higher than the fundamental absorption edge  
M. Cardona and G. Harbeke  
*J. Appl. Phys.* **34** 813 (1963).

24. Resonance of a small plasma sphere in a magnetic field  
M. Cardona and B. Rosenblum  
*Phys. Rev.* **129** 991 (1963).
25. Polarization effects in the UV-reflection of crystals with wurtzite structure  
M. Cardona  
*Solid State Commun.* **5**, 109 (1963).
26. Optical properties and band structure of group IV-VI and group V materials  
M. Cardona and D.L. Greenaway  
*Phys. Rev.* **133**, A1685 (1964).
27. Optical properties of wurtzite-type crystals in the fundamental absorption region  
M. Cardona and G. Harbecke  
Proceedings of the 1964 Paris Semiconductors Conference, The Physics of Semiconductors (Dunod, Paris, 1964) p. 217.
28. Microwave observation of surface superconductivity in type II superconductors  
M. Cardona and B. Rosenblum  
*Phys. Letters* **8**, 308 (1964).
29. Surface superconductivity and supercooling Hg-Cd alloys  
M. Cardona and B. Rosenblum  
*Phys. Letters* **11**, 112 (1964).
30. Surface superconductivity, supercooling, in weak and strong coupling in type-I superconductors  
M. Cardona and B. Rosenblum  
Proceedings of the 9th Conference on Low Temperature Physics, 1964.
31. Surface superconductivity in type-I superconductors  
M. Cardona and B. Rosenblum  
*Phys. Letters* **9**, 220 (1964).
32. Evidence for normal regions at low temperature in the superconducting mixed states  
B. Rosenblum and M. Cardona  
*Phys. Rev. Lett.* **12**, 657 (1964).
33. Temperature dependence of the Ginzburg-Landau parameter  $\kappa$  in weak and strong coupling superconductors  
B. Rosenblum and M. Cardona  
*Phys. Letters* **13**, 33 (1964).
34. Microwave surface impedance of hard superconductors: In-Bi alloy  
M. Cardona, G. Fischer, and B. Rosenblum  
*Phys. Rev. Lett.* **12**, 101 (1964).
35. Microwave surface impedance of hard superconductors:  $Nb_3Sn$   
B. Rosenblum, M. Cardona, and G. Fischer  
*RCA Review* **25**, 491 (1964).
36. Optical properties of semiconductors at energies above the fundamental absorption edge  
M. Cardona  
Proceedings of International Conference on Semiconductor Physics, Paris 1964 (Dunod, Editeur, Paris, 1964), p. 181.

37. Preparation and optical properties of boron monophosphide  
C.C. Wang, M. Cardona, and A.G. Fischer  
RCA Review **25**, 159 (1964).
38. Infrared dielectric constant and ultraviolet optical properties of solids with diamond, zincblende, wurtzite, and rock salt structure  
M. Cardona  
J. Appl. Phys. **36**, 2181 (1965).
- 38a Optical properties and band structure of wurtzite-type crystals and rutile  
M. Cardona and G. Harbeke  
Phys. Rev. **137 (5A)**, 1467 (1965).
39. Optical properties and band structure of  $\text{SrTiO}_3$  and  $\text{BaTiO}_3$   
M. Cardona  
Phys. Rev. **140**, A651 (1965).
40. Band structure of Gallium Arsenide: spin-orbit splitting  
M. Cardona, F. Pollak, and J.G. Broerman  
Phys. Letters **19**, 276 (1965).
41. An intrinsic hysteresis in type-II superconductors  
M. Cardona, J. Gittleman, and B. Rosenblum  
Phys. Letters **17**, 92 (1965).
42. Ultraviolet reflection spectrum of cubic CdS  
M. Cardona, M. Weinstein, and G. Wolff  
Phys. Rev. **140**, A633 (1965).
43. Electroreflectance at a Semiconductor-Electrolyte Interface  
K.L. Shaklee, M. Cardona, and F.H. Pollak  
Phys. Rev. Lett. **15**, 883 (1965).
44. Energy band structure of germanium and silicon: the  $k \cdot p$  method  
M. Cardona and F.H. Pollak  
Phys. Rev. **142**, 530 (1966).
45. Energy band structure of germanium and gallium-arsenide: The  $k \cdot p$  method  
M. Cardona and F.H. Pollak  
J. Phys. Chem. Solids **27**, 423 (1966).
46. Electroreflectance and spin-orbit splitting in III-V semiconductors  
K.L. Shaklee, M. Cardona, and F.H. Pollak  
Phys. Rev. Lett. **16**, 48 (1966).
47. Absorption spectrum of III-V compounds at high energies  
M. Cardona  
in *The properties of the III-V Compounds*, ed. by Willardson and Beer (Academic Press, New York, 1967) p. 125.
48. Electroreflectance in AlSb  
M. Cardona, K.L. Shaklee, and F.H. Pollak  
Phys. Rev. Lett. **16**, 644 (1966).
49. Electroreflectance in GaAs-GaP alloys  
A. G. Thompson, M. Cardona, K.L. Shaklee, and J.C. Woolley  
Phys. Rev. **146**, 601 (1966).

50. Piezo-Electro reflectance in GaAs  
 F.H. Pollak, M. Cardona, and K.L. Shaklee  
*Phys. Rev. Lett.* **16**, 942 (1966).
51. Electroreflectance and Band Structure of Gray Tin  
 M. Cardona, P. McElroy, F.H. Pollak, and K.L. Shaklee  
*Solid State Commun.* **4**, 319 (1966).
52. Electronic surface state in germanium and silicon  
 C.M. Chaves, N. Majlis, and M. Cardona  
*Solid State Commun.* **4**, 271 (1966).
53. Electronic energy bands in GaAs for imaginary crystal momentum  
 C.M. Chaves, N. Majlis, and M. Cardona  
*Solid State Commun.* **4**, 631 (1966).
54. Band Structure of AlSb, GaAs, GaP, and InP: the  $k \cdot p$  method  
 F.H. Pollak, C.W. Higginbotham, and M. Cardona  
*Proceedings of the International Conference on the Physics of Semiconductors, Kyoto 1966*,  
*J. Phys. Soc. Japan* **215**, 20 (1966).
55. Electroreflectance at a semiconductor-electrolyte interface: Infrared measurements  
 M. Cardona, K.L. Shaklee, and F.H. Pollak  
*Phys. Lett.* **23**, 37 (1966).
56. Electroreflectance at a semiconductor-electrolyte interface  
 M. Cardona, K.L. Shaklee, and F.H. Pollak  
*Phys. Rev.* **154**, 696 (1967).
57. Electroreflectance in semiconductors  
 M. Cardona, F.H. Pollak, and K.L. Shaklee  
*Proceedings of the International Conference on the Physics of Semiconductors, 1966*, *J. Phys. Soc. Japan* **215**, 89 (1966).
58. Optical properties of insulators: Dispersion relations  
 M. Cardona  
*Proceedings of the NATO Summer Institute on Optical Properties of Solids, Freiburg, 1966*  
 (Plenum Press, 1969), p. 137.
59. Supercooling and superheating in type-I superconductors, tin  
 F.W. Smith, and M. Cardona  
*Phys. Lett. A* **24**, 247 (1967).
60. Superheating and supercooling in normal-metal-plated superconductors  
 F.W. Smith and M. Cardona  
*Solid State Commun.* **5**, 345 (1967).
61. Band structure of gray tin under uniaxial stress  
 M. Cardona  
*Solid State Commun.* **5**, 233 (1967);  
 Erratum: *Band gap of Hg chalcogenides: Symmetry-reduction-induced band-gap opening of materials with inverted band structures* [*Phys. Rev. B* **74** 045205 (2006)].
62. Optical constants of germanium and gray tin: the  $k \cdot p$  method  
 C.W. Higginbotham, M. Cardona, and F.H. Pollak  
*Solid State Commun.* **5**, 513 (1967).

63. Exciton electroreflectance in II-VI compounds  
 R.A. Forman, and M. Cardona  
 Proceedings of the International Conference on the II-VI Compounds, 6-9 Sept. 1967, Brown University (Benjamin, New York, 1967), p. 100.
64. Electro-optic Measurements of PbS, PbSe, PbTe  
 D.A. Aspnes, and M. Cardona  
*Phys. Rev.* **173**, 714 (1968).
- 64a. Evidence for Metastable Superconducting Surface Sheets below the bulk crystalfield  
 F.W. Smith, and M. Cardona  
*Phys. Lett. A* **25**, 671 (1967).
- 64b. Optical Absorption above the Fundamental Edge  
 M. Cardona  
 in *Semiconductors and Semimetals*, Vol. 3 (Academic Press Inc., New York, 1967), p. 125.
65. Optical spectroscopy of semiconductors: Modulation techniques  
 M. Cardona  
 Proceedings of the International Conference on the Physics of Semiconductors, Moscow, July 1968, p. 365.
66. Thermoreflectance in the alkali metals  
 E. Matatagui, and M. Cardona  
*Solid State Commun.* **6**, 313 (1968).
67. Band structure and optical constants of InSb, InAs, and GaSb  
 M. Cardona  
 Proceedings of the International Conference on the Physics of Semiconductors, Moscow, July 1968, p. 57.
68. Surface superconductivity, supercooling, and superheating of strong-coupling superconductors: Lead and Mercury  
 F.W. Smith and M. Cardona  
*Solid State Commun.* **6**, 37 (1968).
69. Piezo-electroreflectance in Ge, GaAs, and Si  
 F.H. Pollak and M. Cardona  
*Phys. Rev.* **172**, 816 (1968).
70. Problems in optical properties of solids  
 M. Cardona  
 ed. by J. Goldsmid (Pion Press, 1968).
71. Reflectivity spectrum of CsBr and CsI in the rock salt structure  
 A.A. Gavini and M. Cardona  
*Phys. Lett. A* **27**, 112 (1968).
72. Deformation potentials of ZnO  
 J.E. Rowe, M. Cardona and F.H. Pollak  
*Solid State Commun.* **6**, 239 (1968).
73. Modulation Spectroscopy  
 M. Cardona  
 in *Solid State Physics*, Suppl., ed. by Seitz, Turnball, and Ehrenreich (Academic Press, New York, 1969).

74. New evidence for the existence of exciton effects in hyperbolic critical points  
 K.L. Shaklee, J.E. Rowe, and M. Cardona  
*Phys. Rev.* **174**, 828 (1968).
75. Electroreflectance in the Ge-Si alloys  
 J.S. Kline, M. Cardona, and F.H. Pollak  
*Helv. Phys. Acta* **41**, 968 (1968).
76. Optical properties of solids  
 M. Cardona  
 Lecture series given at the Latin-American School of Physics, Santiago de Chile, July 1967 in *Solid State Physics, Nuclear Physics, and Particle Physics* (Benjamin, New York, 1968).
- 76a. Thermoreflectance in Semiconductors  
 E. Matatagui, A.G. Thompson, and M. Cardona  
*Phys. Rev.* **176**, 950 (1968).
- 76b. Electroreflectance Measurements on  $Mg_2Si$ ,  $Mg_2Ge$ ,  $Mg_2Sn$   
 F. Vazquez, R.A. Forman, and M. Cardona  
*Phys. Rev.* **176**, 905 (1968).
- 76c. Electric Field Effects in Optical Transitions to the  $n = 1$  in  $Cu_2O$  Exciton  
 S. Brahms and M. Cardona  
*Solid State Commun.* **6**, 733 (1968).
77. Effect of Uniaxial Compression on the Exciton Spectrum of CdS  
 J.E. Rowe, M. Cardona, and F.H. Pollak  
 Proceedings of the International Conference on the II-VI Compounds, September 6-9, 1967, Brown University (Benjamin, New York, 1967), p. 112.
78. Intrinsic piezobirefringence of AlSb  
 A. Yu Shileika, M. Cardona and F.H. Pollak  
*Solid State Commun.* **7**, 1113 (1969).
79. Deformation potentials of the indirect and direct absorption edges of AlSb  
 L. Laude, M. Cardona, and F.H. Pollak  
*Phys. Rev. B* **1**, 143 (1970).
80. Effect of static uniaxial stress on the Raman spectrum of silicon  
 E. Anastassakis, A. Pinczuk, E. Burstein, F.H. Pollak, and M. Cardona  
*Solid State Commun.* **8**, 133 (1970).
81. Energy band structure and optical spectrum of grey tin  
 F.H. Pollak, M. Cardona, C.W. Higginbotham, F. Herman, and J.P. van Dyke  
*Phys. Rev. B* **2**, 352 (1970).
82. Modulated Piezoreflectance in semiconductors  
 M. Cardona and A. Gavini  
*Phys. Rev. B* **1**, 672 (1970).
83. Intrinsic piezobirefringence of Ge, Si, and GaAs  
 C.W. Higginbotham, M. Cardona, and F.H. Pollak  
*Phys. Rev.* **184**, 821 (1969).
84. Transverse electroreflectance in semi-insulating silicon and gallium arsenide  
 R.A. Forman, D.E. Aspnes, and M. Cardona  
*J. Phys. Chem. Solids* **31**, 227 (1970).

85. Stress-induced exchange splitting of hyperbolic excitons in GaAs  
 J.E. Rowe, F.H. Pollak, and M. Cardona  
*Phys. Rev. Lett.* **22**, 933 (1969).
86. Piezobirefringence and deformation potentials of the alkali halides  
 A. Gavini and M. Cardona  
*Phys. Rev.* **177**, 1351 (1969).
87. Derivative spectrum of indirect excitons in AlSb  
 J.E. Rowe, K.L. Shaklee, and M. Cardona  
*Solid State Commun.* **7**, 441 (1969).
88. Stress dependence of the  $E_1$ ,  $E_1 + \Delta_1$  transitions in InSb and GaAs  
 T. Tuomi, M. Cardona, and F.H. Pollak  
*phys. stat. sol.* **40**, 227 (1970).
89. Effects of uniaxial stress on the indirect spectrum of silicon  
 L.D. Laude, F.H. Pollak, and M. Cardona  
*Phys. Rev. B* **3**, 2623 (1971).
90. Optical Properties of the Rubidium and Cesium Halides in the Extreme UV  
 M. Cardona, R. Haensel, D.W. Lynch, and B. Sonntag  
*Phys. Rev. B* **2**, 1117 (1970).
91. Optical Properties of Some Compound Semiconductors in the 36-150 eV Region  
 M. Cardona  
*Phys. Rev. B* **1**, 2605 (1970).
92. Core Transitions and Density of Conduction States in the III-V Semiconductors  
 M. Cardona, W. Gudat, E.E. Koch, M. Skibowski, B. Sonntag, and P.Y. Yu  
*Phys. Rev. Lett.* **25**, 659 (1970).
93. Modulation Spectroscopy of Semiconductors  
 M. Cardona  
 in *Festkörperprobleme* (Vieweg Verlag, Braunschweig, 1970), p. 125.
94. Optical Properties and Electronic Density of States  
 M. Cardona  
*J. of Res. of the NBS A* **74**, 253 (1970).
95. Temperature Coefficient of the Refractive Index of Diamond and Zincblende-Type Semiconductors  
 P.Y. Yu, and M. Cardona  
*Phys. Rev. B* **2**, 3193 (1970).
96. Anomalous Behavior of  $H_{c3}/H_{c2}$  near the  $T_c$  for Sn-In and In-Bi Alloy Systems  
 M.D. Maloney, F. de la Cruz, and M. Cardona  
*Phys. Rev. B* **2**, 2512 (1970).
97. Variation of the Radio  $H_{c3}/H_{c2}$  in the Immediate Vicinity of  $T_c$   
 F. de la Cruz, M.D. Maloney, and M. Cardona  
*Phys. Rev.* **187**, 766 (1969).
98. Supercooling and Superheating in Zn and Al  
 F. de la Cruz, M.D. Maloney, and M. Cardona  
 Proceedings of the International Conference on Superconductivity, Stanford, 1969, *Physica* **55**, 749 (1971).

99. Non-local Superheating in Type-I Superconductors  
 F.W. Smith, A. Baratoff, and M. Cardona  
 Proceedings of the 11th Int. Conf. on Low-Temperature Physics, ed. by J.F. Allen, D.M. Finlayson, and D.M. McCall, (St. Andrews University Printing Dept., 1968) p. 751.
100. Superconductive Supercooling and Superheating of Small Cadmium Spheres: Size Effects  
 F. de la Cruz, M.D. Maloney, and M. Cardona  
 Phys. Rev. B **3**, 3802 (1971).
101. Intrinsic Piezobirefringence in GaSb, InAs, and InSb  
 P.Y. Yu, F.H. Pollak, and M. Cardona  
 Phys. Rev. B **3**, 340 (1971).
102. Raman Scattering in Mg<sub>2</sub>Si, Mg<sub>2</sub>Ge, and Mg<sub>2</sub>Sn  
 C.J. Buchenauer and M. Cardona  
 Phys. Rev. **3**, 2504 (1971).
103. Raman Scattering in Grey Tin  
 C.J. Buchenauer, M. Cardona, and F.H. Pollak  
 Phys. Rev. B **3**, 1243 (1971).
104. Optical Properties and Model Density of States  
 M. Cardona and F.H. Pollak  
 in *The Physics of Optoelectronic Materials* ed. by W.A. Allers, Jr. (Plenum Pub. Co, 1972) p. 81.
105. Raman Tensor of Germanium and Zincblende-Type Semiconductors  
 M. Cardona  
 Solid State Commun. **9**, 819 (1971).
106. Fresnel Reflection and Surface Plasmons  
 M. Cardona  
 Am. J. Phys. **39**, 1277 (1971).
107. Superheating, Supercooling, and Superconductivity and Ginzburg-Landau Parameters of Pure Type-I Superconductors and their Alloys  
 F.W. Smith, A. Baratoff, and M. Cardona  
 Phys. kondens. Materie **12**, 145 (1970).
108. Hydrostatic Pressure Coefficients and Deformation-Potentials for II-VI Compounds  
 F. Cerdeira, J.S. DeWitt, U. Rössler, and M. Cardona  
 phys. stat. sol. (b) **41**, 735 (1970).
109. Dispersion and Relaxation in the Stress-Induced Birefringence of Amorphous Selenium  
 P.Y. Yu and M. Cardona  
 phys. stat. sol. **47**, 251 (1971).
110. Raman Scattering in Amorphous Ge and III-V Compounds  
 M. Wihl, M. Cardona and J. Tauc  
 J. Non-Cryst. Solids **8-10**, 172 (1972).
111. Volume Dependence of the Raman Frequencies of Ge-Si Alloys  
 J.B. Renucci, M.A. Renucci, and M. Cardona  
 Solid State Commun. **9**, 1651 (1971).

112. Optical Absorption of Semiconductors from 15-150 eV  
 M. Cardona, W. Gudat, B. Sonntag, and P.Y. Yu  
 Proceedings of Tenth International Conference on the Physics of Semiconductors, Aug. 17-21, 1970, Cambridge, Massachusetts, ed. by S.P. Keller, J.C. Hensel, and F. Stern (NVS, Springfield, VA, 1970) p. 209.
113. Optical Properties and Band Structure of Germanium and Zincblende-Type Semiconductors  
 M. Cardona  
 Proceedings of the Enrico Fermi School, Varenna, 1971, in *Atomic Structure and Properties of Solids*, ed. by E. Burstein (Academic Press, New York, 1972) p. 314.
114. Spatial Dispersion in the Dielectric Constant of GaAs  
 P.Y. Yu and M. Cardona  
 Solid State Commun. **9**, 1421 (1971).
115. Resonant Raman Scattering in Ge and Zincblende-Type Semiconductors  
 Temperature Dependence  
 J.B. Renucci, M.A. Renucci, and M. Cardona  
 Solid State Commun. **9**, 1235 (1971).
116. Kovalente Bindung, Dielektrische und Optische Eigenschaften der Festkörper  
 M. Cardona  
 in Physik 1971, ed. by B.G. Teubner, p. 213.
117. Spatial Dispersion-Induced Birefringence in Cubic Semiconductors  
 M. Cardona  
 in *Computational Solid State Physics* (Plenum Press, 1972) p. 7.
118. Raman Scattering in Ge-Si Alloys  
 M.A. Renucci, J.B. Renucci, and M. Cardona  
 Proceedings of the Second International Conference on Light Scattering in Solids, Paris, July 19-23, 1971, ed. by M. Balkanski (Flammarion Sciences, Paris, 1971) p. 326.
119. Resonant Raman Scattering in III-V Semiconductors and their Alloys  
 M. A. Renucci, J.B. Renucci, and M. Cardona  
 phys. stat. sol. (b) **49**, 625 (1972).
120. Effect of Uniaxial Stress on the Reststrahlen Spectrum of GaAs  
 B. Weinstein and M. Cardona  
 Phys. Rev. B **5**, 3120 (1972).
121. Influence of Hydrostatic Pressure on the Raman Frequencies of Opaque Semiconductors  
 C.J. Buchenauer, F. Cerdeira, and M. Cardona  
 Proceedings of Second International Conference on Light Scattering in Solids, Paris, July 19-23, 1971, ed. by M. Balkanski (Flammarion Sciences, Paris, 1971) p. 280.
122. Superconducting Parameters and Size Effects in Al Films and Foils  
 D.A. Maloney, F. de la Cruz, and M. Cardona  
 Phys. Rev. B **5**, 3558 (1972).
123. Piezobirefringence in the Vacuum Ultraviolet: Alkali Halides and Alkaline Earth Fluorides  
 C. Sanchez and M. Cardona  
 phys. stat. sol. (b) **50**, 293 (1972).
124. Resonant Raman Scattering in Germanium  
 F. Cerdeira, W. Dreybrodt, and M. Cardona  
 Solid State Commun. **10**, 591 (1972).

125. Stress-Induced Shifts of First-Order Raman Frequencies of Diamond and Zincblende-Type Semiconductors  
F. Cerdeira, C.J. Buchenauer, F.H. Pollak, and M. Cardona  
*Phys. Rev. B* **5**, 580 (1972).
126. Intrinsic Piezobirefringence of Several Semiconducting Chalcogenides  
P.Y. Yu and M. Cardona  
*J. Phys. Chem. Solids* **34**, 29 (1973).
127. Core Levels of III-V Semiconductors  
W. Gudat, E.E. Koch, P.Y. Yu, M. Cardona, and C.M. Penchina  
*phys. stat. sol. (b)* **52**, 505 (1972).
128. Optical and Photoelectric Properties of the Lead Chalcogenides  
M. Cardona, C.M. Penchina, E.E. Koch, and P.Y. Yu  
*phys. stat. sol. (b)* **53**, 327 (1972).
129. Spatial-Dispersion-Induced Birefringence in Cubic Semiconductors  
M. Bettini and M. Cardona  
Proceedings of Warsaw Semiconductors Conference, 1972 (Polish Scientific Publ., Warsaw, 1972) p. 1072.
130. Resonant Raman Scattering in Zincblende and Diamond Semiconductors  
F. Cerdeira, W. Dreybrodt, and M. Cardona  
Proceedings of Warsaw Semiconductors Conference, 1972 (Polish Scientific Publ., Warsaw, 1972), p. 1142.
131. Resonant Raman Scattering in the  $E_1$ ,  $E_1 + \Delta_1$  Region of InSb  
W. Dreybrodt, W. Richter, and M. Cardona  
*Solid State Commun.* **11**, 1127 (1972).
132. The Second-Order Raman Spectrum of Germanium  
B. Weinstein and M. Cardona  
*Phys. Rev. B* **7**, 2545 (1973).
133. Photoemission of GaAs and InSb Core Levels  
M. Cardona, C.M. Penchina, N. Shevchik, and J. Tejeda  
*Solid State Commun.* **11**, 1655 (1973).
134. Optische Eigenschaften der Festkörper  
M. Cardona  
*Applied Physics* **2**, 103 (1973).
135. X-Ray and Far-UV Photoemission of AlSb  
N.J. Shevchik, J. Tejeda, C.M. Penchina, and M. Cardona  
*Solid State Commun.* **11**, 1619 (1972).
136. Effect of Carrier Concentration on the Raman Frequencies of Si and Ge  
F. Cerdeira and M. Cardona  
*Phys. Rev. B* **5**, 1440 (1972).
137. Two-Phonon Raman Spectra of Si and GaP  
B.A. Weinstein and M. Cardona  
*Solid State Commun.* **10**, 961 (1972).

138. Elastic Constants and Raman Frequencies of Heavily-Doped Si under Uniaxial Stress  
 T.A. Fjeldly, F. Cerdeira, and M. Cardona  
*Solid State Commun.* **12**, 553 (1973).
139. Light Scattering as a Form of Modulation Spectroscopy  
 M. Cardona  
*Proceedings of the Conference on Modulation Spectroscopy, Tucson, Arizona 1972,*  
*Surface Science* **37**, 100 (1973).
140. Valence Band of  $Mg_2Sn$  Determined by Auger and Photoemission Spectroscopy  
 J. Tejeda, N.J. Shevchik, D.W. Langer, and M. Cardona  
*Phys. Rev. Lett.* **30**, 370 (1973).
141. Effect of Hydrostatic Pressure on the Second-Order Raman Spectrum of GaP  
 B.A. Weinstein, J.B. Renucci, and M. Cardona  
*Solid State Commun.* **12**, 473 (1973).
142. Similarities in the Valence Bands of Amorphous and Crystalline GeTe Determined by X-Ray Photoemission  
 N.J. Shevchik, J. Tejeda, D.W. Langer, and M. Cardona  
*Phys. Rev. Lett.* **30**, 659 (1973).
143. Photoelectric Properties of the Lead Chalcogenides  
 M. Cardona, D.W. Langer, N.J. Shevchik, J. Tejeda  
*phys. stat. sol. (b)* **58**, 127 (1973).
144. Hydrostatic Pressure Dependence of First-Order Raman Frequencies in Se and Te  
 W. Richter, J.B. Renucci, and M. Cardona  
*phys. stat. sol. (b)* **56**, 223 (1973).
145. Measurements and Comparative Analysis of the Second-Order Raman Spectra of the Alkaline Earth Oxides with NaCl Structure  
 K.H. Rieder, B.A. Weinstein, M. Cardona, and H. Bilz  
*Phys. Rev. B* **8**, 4780 (1973).
146. Valence Band Density of States of Amorphous and Trigonal Selenium Determined by X-Ray and UV-Photoemission  
 N.J. Shevchik, J. Tejeda, M. Cardona, and D.W. Langer  
*Solid State Commun.* **12**, 1285 (1973).
147. Valence Bands of Amorphous and Crystalline GeTe Determined by X-Ray and UV Photoemission  
 N.J. Shevchik, D.W. Langer, and M. Cardona  
*phys. stat. sol. (b)* **57**, 245 (1973).
148. Interaction between Electronic and Vibronic Raman Scattering in Heavily-Doped Silicon  
 F. Cerdeira, T.A. Fjeldly, and M. Cardona  
*Solid State Commun.* **13**, 325 (1973).
149. Resonant First- and Second-Order Raman Scattering in GaP  
 B.A. Weinstein and M. Cardona  
*Phys. Rev. B* **8**, 2795 (1973).
150. X-Ray and Far-UV Photoemission from Amorphous and Crystalline Films of Se and Te  
 N.J. Shevchik, M. Cardona and J. Tejeda  
*Phys. Rev. B* **8**, 2833 (1973).

151. Photoemission and Density of Valence States of the II-VI Compounds:  
 I. ZnTe, CdSe, CdTe, HgSe, and HgTe  
 N.J. Shevchik, J. Tejeda, M. Cardona, and D.W. Langer  
*phys. stat. sol. (b)* **59**, 87 (1973).
152. Photoelectric Properties of Mg<sub>2</sub>Si, Mg<sub>2</sub>Ge, and Mg<sub>2</sub>Sn: II. W-Excitation  
 M. Cardona, J. Tejeda, N.J. Shevchik, and D.W. Langer  
*phys. stat. sol. (b)* **58**, 483 (1973).
153. Photoelectric Properties of Mg<sub>2</sub>Si, Mg<sub>2</sub>Ge, and Mg<sub>2</sub>Sn: I. X-Ray Excitation  
 J. Tejeda, M. Cardona, N.J. Shevchik, D.W. Langer and E. Schönherr  
*phys. stat. sol. (b)* **58**, 189 (1973).
154. Far-Infrared Absorption in Amorphous III-V Compound Semiconductors  
 W. Prettl, N.J. Shevchik, and M. Cardona  
*phys. stat. sol. (b)* **59**, 241 (1973).
155. Resonant First- and Second-Order Raman Scattering in GaP  
 B.A. Weinstein and M. Cardona  
*Phys. Rev. B* **8**, 2795 (1973).
156. Resonant Raman Scattering in Semiconductors  
 M. Cardona  
 Proceedings of the Antwerp Conference on Excitations in Solids (Plenum Press, 1974), p. 269.
157. Effects of Free Carriers on Zone Center Vibrational Modes in Heavily-Doped p-Type Si:  
 I. Acoustical Modes  
 T.A. Fjeldly, F. Cerdeira, and M. Cardona  
*Phys. Rev. B* **8**, 4723 (1973).
158. Effects of Free Carriers on Zone Center Vibrational Modes in Heavily Doped p-Type Si.  
 II: Optical Modes  
 F. Cerdeira, T.A. Fjeldly, and M. Cardona  
*Phys. Rev. B* **8**, 4734 (1973).
159. Determination of Densities of Valence States by the Combined Use of  
 UV- and X-Ray Photoemission  
 N.J. Shevchik, J. Tejeda, M. Cardona, and D.W. Langer  
*Journal de Physique C6, Suppl. 11, 34*, C6-45 (1973).
160. Photoemission and Density of States of Valence States of the II-VI Compounds II:  
 ZnSe, CdS, and HgS  
 N.J. Shevchik, J. Tejeda, D.W. Langer, and M. Cardona  
*phys. stat. sol. (b)* **60**, 345 (1973).
161. Densities of Valence States of Amorphous and Crystalline Semiconductors  
 N.J. Shevchik, J. Tejeda, and M. Cardona  
 Proceedings of the V. International Conference on Amorphous and Liquid Semiconductors in Garmisch-Partenkirchen (Taylor and Francis, London, 1973), p. 609.
162. Orientation-Dependent Resonant Raman Scattering in InSb and GaSb at the E<sub>1</sub>E<sub>1</sub>+Δ<sub>1</sub> Region  
 W. Dreybrodt, W. Richter, F. Cerdeira, and M. Cardona  
*phys. stat. sol. (b)* **60**, 145 (1973).

163. Resonance Raman Scattering in Group V-Semimetals, As, Sb, and Bi  
 J.B. Renucci, W. Richter, M. Cardona, and E. Schönherr  
*phys. stat. sol. (b)* **60**, 299 (1973).
164. Density of Valence States of Amorphous and Crystalline III-V and II-VI Semiconductors  
 N.J. Shevchik, J. Tejeda, and M. Cardona  
*Phys. Rev. B* **9**, 2627 (1974).
165. Resonant Raman Scattering in GaP in the  $E_0-E_0 + \Delta_0$  Region  
 M.I. Bell, R.N. Tyte, and M. Cardona  
*Solid State Commun.* **13**, 1833 (1973).
166. Density of Valence States in Amorphous C and SiC  
 J. Tejeda, N. Shevchik, and M. Cardona  
 Proceedings of the V. International Conference on Amorphous and Liquid Semiconductors in Garmisch-Partenkirchen, 1973 (Taylor and Francis, London, 1974), p. 557.
167. Raman Study of the Interaction Between Localized Vibrations and Electronic Excitations in Boron-Doped Silicon  
 F. Cerdeira, T.A. Fjeldly, and M. Cardona  
*Phys. Rev. B* **9**, 4344 (1974).
168. Partial p and d Densities of States in CuI Determined by Ultraviolet Photoemission  
 A. Goldmann, J. Tejeda, N.J. Shevchik, and M. Cardona  
*Solid State Commun.* **15**, 1093 (1974).
169. Temperature Dependence of the Band Structure of Germanium- and Zincblende-Type Semiconductors  
 D. Auvergne, J. Camassel, H. Mathieu, and M. Cardona  
*Phys. Rev. B* **9**, 5168 (1974).
170. Second-Order Resonant Raman Scattering at the  $E_1, E_1 + \Delta_1$  Edges of Germanium  
 M.A. Renucci, J.B. Renucci, and M. Cardona  
*Solid State Commun.* **14**, 1299 (1974).
171. Density of Valence States of CaCl, CuBr, CuI, and AgI  
 A. Goldmann, J. Tejeda, N.J. Shevchik, and M. Cardona  
*Phys. Rev. B* **10**, 4388 (1974).
172. Optical Phonons in CdSiP<sub>2</sub>  
 M. Bettini, W. Bauhofer, M. Cardona, and R. Nitsche  
*phys. stat. sol. (b)* **63**, 641 (1974).
173. Valence Bands of Ag Halides Determined by X-Ray and UV-Photoemission  
 J. Tejeda, W. Braun, A. Goldmann, and M. Cardona  
 International Conference Electron Spectroscopy, Namur, Belgium (1974)  
*Journal of Electron Spectroscopy and Related Phenomena* **5**, 583 (1974).
174. On the Sign of the Raman Tensor of Diamond and Zincblende-Type Semiconductors  
 M. Cardona, F. Cerdeira, and T.A. Fjeldly  
*Phys. Rev. B* **10**, 3433 (1974).
175. First Observation of Landau Levels by Electroreflectance at the  $E_1$  and  $E_1 + \Delta_1$  Edges of InSb  
 A.M. Joullie, C. Alibert, R. Ranvaud, and M. Cardona  
*phys. stat. sol. (b)* **64**, 599 (1974).

176. Second-Order Raman Scattering in Germanium in the Vicinity of the  $E_1$  and  $E_1 + \Delta_1$  Edges  
 M.A. Renucci, J.B. Renucci, R. Zeyher, and M. Cardona  
*Phys. Rev. B* **10**, 4309 (1974).
177. The Application of Far UV Sources for Determining the Valence Band Structure of Solids  
 W. Braun, A. Goldmann, J. Tejeda, N.J. Shevchik, and M. Cardona  
 IV. International Conference on Vacuum-Ultraviolet Radiation Physics, Hamburg, 1974, p. 408.
178. Resonant Second-Order Raman Scattering in Tetrahedral Semiconductors  
 B.D. McCombe, M.A. Renucci, J.B. Renucci, R.L. Schmidt, R.N. Tyte, and M. Cardona  
 12th International Conference on the Physics of Semiconductors, Stuttgart, 1974, p. 504.
179. Monochromatized X-Ray and Far-UV Photoemission Studies of  $\text{II}_3\text{-V}_2$  Semiconductors  
 S.G. Bishop, N.J. Shevchik, and M. Cardona  
 in *Vacuum Ultraviolet Radiation Physics*, ed. by Kodi, Haensel, and Kunz (Pergamon-Vieweg, Braunschweig, 1974), p. 497.
180. Partial Density of Valence States of Amorphous and Crystalline  $\text{AgInTe}_2$  and  $\text{CuInS}_2$   
 W. Braun, A. Goldmann, and M. Cardona  
*Phys. Rev. B* **10**, 5069 (1974).
181. Concluding Remarks  
 M. Cardona  
 International Conference on the Physics of Semiconductors  
 Proceedings 12th Int. Conference on the Physics of Semiconductors, Stuttgart, Germany, 1974  
 eds. M. Pilkuhn, and B.G. Teubner, 1974, p. 1339.
182. Electroreflectance Studies of Interband Transitions in Ge, InSb, and GaAs in High Magnetic Fields  
 R. Ranvaud, C. Alibert, A.M. Joullie, and M. Cardona  
 Proceed. of 12th Int. Conference on the Physics of Semiconductors, Stuttgart, Germany, 1974  
 eds. M. Pilkuhn and B.G. Teubner, 1974, p. 536.
183. Resonant First- and Second-Order Raman Scattering in ZnTe  
 R.L. Schmidt, D.B. McCombe, and M. Cardona  
*Phys. Rev. B* **11**, 746 (1975).
184. Resonant Raman Scattering in Silicon  
 J.B. Renucci, R.N. Tyte, and M. Cardona  
*Phys. Rev. B* **11**, 3885 (1975).
185. Pressure Dependence of the Zone Edge TA-Phonons in Silicon  
 W. Richter, J.B. Renucci, and M. Cardona  
*Solid State Commun.* **16**, 131 (1975).
186. Valence Bands of  $\text{AgCl}$  and  $\text{AgBr}$ : UV Photoemission and Theory  
 J. Tejeda, N.J. Shevchik, W. Braun, A. Goldmann, and M. Cardona  
*Phys. Rev. B* **12**, 1557 (1975).
187. Bond Charge, Bond Polarizability, and Photon Spectra in Semiconductors  
 S. Go, H. Bilz, and M. Cardona  
*Phys. Rev. Lett.* **34**, 580 (1975).
188. Second-Order Raman Scattering in the Group  $V_b$  Semimetals: Bi, Sb, and As  
 J.S. Lannin, J.M. Calleja, and M. Cardona  
*Phys. Rev. B* **12**, 585 (1975).

189. Second-Order Raman Scattering in InSb  
 W. Kiefer, W. Richter, and M. Cardona  
*Phys. Rev. B* **12**, 2346 (1975).
190. *Light Scattering in Solids I: Introductory Concepts*  
 M. Cardona, (Editor, Chapter 1)  
*Springer Topics in Applied Physics*, Vol. 8, Springer Verlag, New York, Heidelberg, Berlin, (1975), Second Edition: 1983.
191. Dependence of the Indirect Energy Gap of Silicon on Hydrostatic Pressure  
 B. Welber, C.K. Kim, M. Cardona and S. Rodriguez  
*Solid State Commun.* **17**, 1021 (1975).
193. Concluding Remarks  
 M. Cardona and J. Jerphagnon  
*Proceedings of Int. Conf. on Ternary Semiconductors, Strasbourg Journal de Physique* **36**, C3-189 (1975).
194. Dependence of the Direct Energy Gap of GaAs on Hydrostatic Pressure  
 B. Welber, M. Cardona, C.K. Kim, and S. Rodriguez  
*Phys. Rev. B* **12**, 5729 (1975).
195. Resonant Raman Scattering in  $Mg_2Si$  and  $Mg_2Ge$   
 S. Onari, E. Anastassakis, and M. Cardona  
*Proceedings of the International Conference of Light Scattering in Solids, Campinas, Brazil, 1975* (Flammarion, Paris, 1975), p. 54.
196. Resonant Second-Order Raman Scattering in Zincblende-Type Semiconductors  
 W. Kiefer, W. Richter, R.L. Schmidt, and M. Cardona  
*Proceedings of the International Conference of Light Scattering in Solids, Campinas, Brazil, 1975* (Flammarion, Paris, 1975), p. 98.
197. Resonant Raman Scattering under Uniaxial Stress:  $E_1 - E_1 + \Delta_1$  Gaps  
 W. Richter, R. Zeyher, and M. Cardona  
*Proceedings of the International Conference of Light Scattering in Solids, Campinas, Brazil, 1975* (Flammarion, Paris, 1975), p. 63.
198. Acoustic and Optical One-Phonon Density of States in Antiferromagnetic GdS  
 E. Anastassakis, H. Bilz, and M. Cardona  
*Proceedings of the International Conference of Light Scattering in Solids, Campinas, Brazil, 1975* (Flammarion, Paris, 1975), p. 367.
199. Raman Investigations on GaAs at  $E_1$  and under High Hydrostatic Pressure near  $E_0$   
 R. Trommer, E. Anastassakis, and M. Cardona  
*Proceedings of the International Conference of Light Scattering in Solids, Campinas, Brazil, 1975* (Flammarion, Paris, 1975), p. 396.
200. The Effect of the Free Carriers on the Elastic Constants of p-Type Silicon and Germanium  
 C.K. Kim, M. Cardona, and S. Rodriguez  
*Phys. Rev. B* **13**, 5429 (1976).
201. Bond Polarizations and Energy Bands of Covalent Semiconductors  
 S. Go, H. Bilz, and M. Cardona  
*Proceedings of Int. Conf. of Light Scattering in Solids, Campinas, Brazil, 1975*, (Flammarion, Paris, 1975), p. 377.

202. On the  $\omega^4$  Law in Microscopic Theories of Inelastic Light Scattering  
 R. Zeyher, H. Bilz, and M. Cardona  
 Solid State Commun. **19**, 57 (1976).
203. The valence Bands of the Mg<sub>2</sub> (X = Si, Ge, Sn) Semiconducting Compounds  
 J. Tejeda and M. Cardona  
 Phys. Rev. B **14**, 2550 (1976).
204. Photoelektronenspektroskopie an Halbleitern  
 M. Cardona  
 Wiss. Z. Karl-Marx-Universität Leipzig, Math. Naturwissenschaften R, 25 Jg. 204 (1976).
205. Photoemission Study of the Density of Valence States and d-Core Levels in SnTe  
 P.C. Kemeny and M. Cardona  
 J. Phys. C: Solid State Phys. **9**, 1361 (1976).
206. Electronic Density of States of Amorphous CuGaS<sub>2</sub> and ZnGeAs<sub>2</sub>  
 W. Braun and M. Cardona  
 phys. stat. sol. (b) **76**, 251 (1976).
207. Resonant Raman Scattering III-IV semiconductors Mg<sub>2</sub>Si, Mg<sub>2</sub>Ge, and Mg<sub>2</sub>Sn  
 S. Onari and M. Cardona  
 Phys. Rev. B **14**, 3520 (1976).
208. Relative Raman Cross-Section and Deformation Potentials of Several Semiconductors at the E<sub>1</sub> Resonance  
 S. Onari, R. Trommer, M. Cardona  
 Solid State Commun. **19**, 1145 (1976).
209. The Transverse Reduced Mass of the E<sub>1</sub> and E<sub>1</sub> + Δ<sub>1</sub> Transitions in Silicon  
 M. Cardona  
 Phys. Rev. B **15**, 5999 (1977).
210. Synchrotron Radiation  
 M. Cardona  
 in *Encyclopedia of Physics*, ed. by R.G. Lerner and G.L. Trigg (Addison Wesley, Reading, Mass., 1980).
211. Resonant Raman Scattering in the Zinc-Chalcogenides  
 R. Schmidt and M. Cardona  
 Proc. of XIII. Int. Conf. on the Physics of Semiconductors, Rome, Italy  
 ed. by F.G. Fumi (Tip. Marves, Rome, 1976), p. 239.
212. Inter- and Intraband Raman Scattering by Free Electrons in Heavily Doped Si (P)  
 M. Chandrasekhar, J.B. Renucci, M. Cardona, and E.O. Kane  
 Proc. of XIII. Int. Conf. on the Physics of Semiconductors, Rome, Italy  
 ed. by F.G. Fumi (Tip. Marves, Rome, 1976), p. 255.
213. Resonant Raman Scattering in GaAs  
 R. Trommer, A. Pinczuk, and M. Cardona  
 Proceedings of the XIII. International Conference on the Physics of Semiconductors, Rome, Italy, ed. by F.G. Fumi (Tip. Marves, Rome, 1976), p. 231.
214. Effect of Hydrostatic Pressure on the Direct Absorption Edge on Germanium  
 B. Welber and M. Cardona  
 Phys. Rev. B **15**, 875 (1977).

215. Raman Scattering Study of Pressure-Induced Phase Transitions in CuI  
 O. Brafman and M. Cardona  
 Phys. Rev. B **15**, 1081 (1977).
216. Infrared and Raman Spectra of the IV-VI Compounds SnS and SnSe  
 H.R. Chandrasekhar, R.G. Humphreys, U. Zwick, and M. Cardona  
 Phys. Rev. B **15**, 2177 (1977).
217. Effect of Stress on the Raman Spectra of  $Mg_2Si$  and  $Mg_2Sn$   
 S. Onari, M. Cardona, E. Schönherr, and W. Stetter  
 phys. stat. sol. (b) **79**, 269 (1977).
218. Photoelectron Spectra of GeS, GeSe, SnS, and SnSe and their Relation to Structural Trends and Phase Transitions within the Average Valence- $< 5 >$  Compounds  
 P.C. Kemeny, J. Azoulay, M. Cardona and L. Ley  
 Nuevo Cim **39** B, 709 (1977).
219. Resonant Raman Scattering by 2TO Phonons and the Ordering of Conduction Band Minima in GaAs  
 R. Trommer and M. Cardona  
 Solid State Commun. **21**, 153 (1977).
220. Resonant Two-Magnon Raman Scattering in  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>  
 T.P. Martin, R. Merlin, D.F. Huffman, and M. Cardona  
 Solid State Commun. **22**, 565 (1977).
221. Valence Band Structure of PbS from Angle-Resolved Photoemission  
 T. Grandke, L. Ley, and M. Cardona  
 Phys. Rev. Lett. **38**, 1033 (1977).
222. Raman Scattering by Wavevector-Dependent Coupled Plasmon - LO Phonons of n-GaAs  
 A. Pinczuk, G. Abstreiter, R. Trommer, and M. Cardona  
 Solid State Commun. **21**, 959 (1977).
223. Phonons in GdS – Raman Scattering of an fcc Metal  
 G. Güntherodt, P. Grünberg, E. Anastassakis, H. Bilz, M. Cardona, H. Hackford, and W. Zinn  
 Phys. Rev. B **16**, 3504 (1977).
224. Strain-Dependence of Effective Masses in Tetrahedral Semiconductors  
 D.E. Aspnes and M. Cardona  
 Phys. Rev. B **17**, 726 (1978).
225. Infrared and Raman Spectra of the Silicon-Hydrogen Bonds in Amorphous Silicon Prepared by Glow Discharge and Sputtering  
 M.H. Brodsky, M. Cardona, and J.J. Cuomo  
 Phys. Rev. B **16**, 3556 (1977).
226. Intraband Raman Scattering by Free Carriers in Heavily-Doped n-Si  
 M. Chandrasekhar, M. Cardona, and E. Kane  
 Phys. Rev. B **16**, 3579 (1977).
227. Electron-Hole Interaction in the d-Electron Excitations of GeS, GeSe, SnS, and SnSe  
 A. Otto, L. Ley, J. Azoulay, T. Grandke, R. Eymard, W. Braun, and M. Cardona  
 Phys. Rev. B **16**, 4429 (1977).

228. Resonant Raman Scattering in ZnO  
 J.M. Calleja and M. Cardona  
*Phys. Rev. B* **16**, 3753 (1977).
229. Surface Band Bending, EDC and Yield Spectroscopy from 2p Core Levels in Heavily-Doped Silicon  
 W. Eberhardt, G. Kalkoffen, C. Kunz, D. Aspnes, and M. Cardona  
*Report on Synchrotron Radiation*, (see # 255).
230. Pressure Dependence of the Raman Spectra of IV-VI Layer Compounds GeS and GeSe  
 H.R. Chandrasekhar, R.G. Humphreys, and M. Cardona  
*Phys. Rev. B* **16**, 2981 (1977).
231. Resonant Brillouin and Raman Scattering in Diamond  
 J.M. Calleja, J. Kuhl, and M. Cardona, unpublished....
232. Resonant Raman Scattering in Amorphous Silicon  
 D. Bermejo, M. Cardona, and M.H. Brodsky  
*Amorphous and Liquid Semiconductors*, (University of Edinburgh, 1977), p. 343.
233. Piezoresistance and the Conduction Band Minima of GaAs  
 D.E. Aspnes and M. Cardona  
*Phys. Rev. B* **17**, 741 (1978).
234. Valence Band Structure of PbS from Angle-Resolved Photoemission  
 T. Grandke, L. Ley, and M. Cardona  
*Phys. Rev. Lett.* **38**, 832 (1977). (repeated 221).
235. Stress-Induced k-linear Terms in the Band Structure of InSb  
 H.R. Trebin, M. Cardona, R. Ranvaud, U. Rössler  
*Proc. of Int. Conf. on the Physics of Narrow Gap Semiconductors*, Warzaw, Sept. 12-15, 1977, ed. by J. Rauluskiewicz, M. Gorska, and E. Kaczmarek (Polish Sci. Pub., 1978), p. 227.
236. Angular Resolved Photoemission form PbS (100) for 16.85 eV and 21.22 eV of Exciton Energy  
 T. Grandke, L. Ley, and M. Cardona  
*Solid State Commun.* **23**, 897 (1977).
237. Resonant First- and Second-Order Raman Scattering in Gray Tin  
 M. Iliev, M. Sinyukov, and M. Cardona  
*Phys. Rev. B* **16**, 5350 (1977).
238. Photoelectron Spectra of Hydrogenated Amorphous Silicon  
 B. von Roedern, L. Ley, and M. Cardona  
*Phys. Rev. Lett.* **39**, 1576 (1977).
240. Hydrostatic Pressure-Dependence of the Zone-Center Phonons in Group Vb Materials: As, Sb, Bi  
 W. Richter, T. Fjeldly, J.B. Renucci, and M. Cardona  
*Proceed. Int. Conf. on Lattice Dynamics*, Paris 1977, Ed. M. Balkanski, (Flammarion Sciences, Paris, 1978), p. 104.
241. Spin-Orbit Splitting in the Valence Bands of PbSe from Angle-resolved UV Photoemission  
 T. Grandke, L. Ley, M. Cardona, and H. Preier  
*Solid State Commun.* **24**, 287 (1977).

242. Self-Energy of Phonons Interacting with Free Electrons in Silicon  
 M. Chandrasekhar and M. Cardona  
 Proc. of the Int. Conf. in Lattice Dynamics, Paris, 1977, ed. by M. Balkanski,  
 (Flammarion, Paris, 1978), p. 186.
243. Resonant Raman Scattering in GaAs  
 R. Trommer and M. Cardona  
 Phys. Rev. B **17**, 1865 (1978).
244. A New Method to Measure Stress-Induced Birefringence in an Opaque Material: Stress-  
 Induced Raman Scattering  
 M. Chandrasekhar, M.H. Grimsditch, and M. Cardona  
 J. Opt. Soc. America **68**, 523 (1978).
245. Effects of Interband Excitations on Raman Phonons in Heavily Doped n-Si  
 M. Chandrasekhar, J.B. Renucci, and M. Cardona  
 Phys. Rev. B **17**, 1623 (1978).
246. Resonant Raman Scattering in Diamond  
 J.M. Calleja, J. Kuhl, and M. Cardona  
 Phys. Rev. B **17**, 876 (1978).
247. Observation of Forbidden Brillouin Scattering Near an Exciton Resonance  
 G. Winterling, E.S. Koteles, and M. Cardona  
 Phys. Rev. Lett. **39**, 1286 (1977).
248. Resonant Raman Scattering in InP  
 M. Sinyukov, R. Trommer, and M. Cardona  
 phys. stat. sol. (b) **86**, 5631 (1978).
249. Piezobirefringence above the Fundamental Edge in Si  
 M. Chandrasekhar, M.H. Grimsditch, and M. Cardona  
 Phys. Rev. B **18**, 4301 (1978).
250. Resonance Raman Scattering in Semiconductors under Uniaxial Stress:  $E_1$ ,  $(E_1 + \Delta_1)$ -gaps  
 W. Richter, R. Zeyher, and M. Cardona  
 Phys. Rev. B **18**, 4312 (1978).
251. k-Linear Coupling and  $E_1$  Transitions in GaAs  
 D.E. Aspnes and M. Cardona  
 Solid State Commun. **27**, 397 (1978).
252. Indirect Exciton Fine Structure in GaP and the Effect of Uniaxial Stress  
 R.G. Humphreys, U. Rössler, and M. Cardona  
 Phys. Rev. B **18**, 5590 (1978).
253. Local-Order as Determined by Electronic and Vibrational Spectroscopy:  
 Amorphous Semiconductors  
 M.H. Brodsky and M. Cardona  
 J. of Non-Cryst. Solids **31**, 81 (1978).
254. Optic Phonon Anomalies and f-d Hybridization in SmS and  $\text{SmB}_6$   
 G. Güntherodt, R. Merlin, A. Frey, and M. Cardona  
 Solid State Commun. **27**, 551 (1978).

255. Photoemission Studies of 2p-Core Levels of Pure and Heavily-Doped Silicon  
 W. Eberhardt, G. Kalkoffen, C. Kunz, D. Aspnes, and M. Cardona  
*phys. stat. sol. (b)* **88**, 135 (1978).
256. Angle-Resolved UV Photoemission and Electronic Band Structure of the Lead Chalcogenides  
 T. Grandke, L. Ley, and M. Cardona  
*Phys. Rev. B* **18**, 3847 (1978).
257. Photoemission in Solids I – General Principles  
 M. Cardona and L. Ley  
 in *Topic of Applied Physics*, Vol. 26 (Springer Verlag, Heidelberg, 1978).
258. Effect of Uniaxial Stress in the Zone-Center Optical Phonon of Diamond  
 M.H. Grimsditch, E. Anastassakis, and M. Cardona  
*Phys. Rev. B* **18**, 901 (1978).
259. Multiphonon Processes in YbS  
 R. Merlin, G. Güntherodt, R. Humphreys, M. Cardona, R. Suryanarayanan, and F. Holtzberg  
*Phys. Rev. B* **17**, 4951 (1978).
260. Infrared Absorption in Hydrogenated Amorphous and Crystallized Germanium  
 D. Bermejo and M. Cardona  
*J. of Non-Cryst. Solids* **32** 421 (1979).
261. Raman Scattering in Pure- and Hydrogenated-Amorphous Germanium and Silicon  
 D. Bermejo and M. Cardona  
*J. of Non-Cryst. Solids* **32**, 405 (1979).
262. Self-Energy of Phonons in Heavily Doped p-Type Ge and GaAs  
 D. Olego, H.R. Chandrasekhar, and M. Cardona  
*Inst. Phys. Conf. Serial No.* **43**, 1313 (1979).
263. Intra- and Interband Raman Scattering in Heavily-Doped p-Si  
 M. Chandrasekhar, U. Rössler, and M. Cardona  
 Proceedings 14th Int. Conf. Physics Semiconductors, Edinburgh 1978, p. 961.
264. Indirect Exciton Fine Structure in GaP and the Effect of Uniaxial Stress  
 R.G. Humphreys, U. Rössler, and M. Cardona  
 Proceedings 14th Int. Conf. Physics Semiconductors, Edinburgh 1978, p. 851.
265. Absolute Cross-Sections of Raman Scattering in Silicon  
 M. Grimsditch and M. Cardona  
 Proceedings 14th Int. Conf. Physics Semiconductors, Edinburgh 1978, p. 639.
266. Atomic Motions Corresponding to Zone Center Phonons in Paratellurite  
 V. Lemos, F. Cerdeira, and M. Cardona  
*phys. stat. sol. (b)* **88**, 199 (1978).
267. Piezobirefringence in Diamond  
 M.H. Grimsditch, E. Anastassakis, and M. Cardona  
*Phys. Rev. B* **19**, 3240 (1979).
268. Vibrational Spectrum of Hydrogenated Amorphous Si-C Films  
 H. Wieder, M. Cardona and C.R. Guarnieri  
*phys. stat. sol. (b)* **92**, 99 (1979).

269. Two-Magnon Resonant Raman Scattering in Transition Metal Oxides  
 R. Merlin, T.P. Martin, A. Polian, M. Cardona, and B. Andlauer, and D. Tannhauser  
*Journal of Magnetism and Magnetic Materials* **9**, 83 (1978).
270. Piezorefringence in GaP and InP  
 F. Canal, M. Grimsditch, and M. Cardona  
*Solid State Commun.* **29**, 523 (1979).
271. Fine Structure in Optical Transitions from 3d and 4d Core Levels to the Lower Conduction Band in Ga-V and In-V Compounds  
 D.E. Aspnes, M. Cardona, V. Saile, M. Skibowski, and G. Sprüssel  
*Solid State Commun.* **31**, 99 (1979).
272. Photoemission Studies on *in situ* Prepared Hydrogenated Amorphous Silicon Films  
 B. von Roedern, L. Ley, M. Cardona, and F.W. Smith  
*Phil. Mag B* **40**, 433 (1979).
273. Resonance Raman Scattering of Excitonic Polaritons by LO and Acoustic Phonons in ZnTe  
 Y. Oka and M. Cardona  
*Solid State Commun.* **30**, 447 (1979).
274. Resonance Enhancement of Raman Scattering by Electron-Gas Excitations of n-GaAs  
 A. Pinczuk, G. Abstreiter, R. Trommer, and M. Cardona  
*Solid State Commun.* **30**, 429 (1979).
275. Absolute Cross-Section of First-Order Raman Scattering in GaAs  
 M.H. Grimsditch, D. Olego, and M. Cardona  
*Phys. Rev. B* **20**, 1758 (1979).
276. Second-Order Raman Scattering in II-VI Semiconductors: Relative Intensities and Trends  
 R.L. Schmidt, K. Kunc, M. Cardona, and H. Bilz  
*Phys. Rev. B* **20**, 3345 (1979).
277. Photoemission in Solids II: Case Studies  
 L. Ley and M. Cardona  
*Topics in Applied Physics*, Vol. 27 (Springer Verlag, Heidelberg, 1979).
278. Temperature Effects on Valence Bands in Semiconducting Lead Chalcogenides  
 T. Grandke, M. Cardona, and L. Ley  
*Solid State Commun.* **32**, 353 (1979).
279. Coupled Plasmon-LO-Phonon and Lindhard-Mermin Dielectric Constant of n-GaAs  
 G. Abstreiter, R. Trommer, M. Cardona, A. Pinczuk  
*Solid State Commun.* **30**, 703 (1979).
280. Theoretical and Experimental Determinations of Raman Scattering Cross-Sections in Simple Solids  
 M. Cardona, M.H. Grimsditch, and D. Olego  
 in *Light Scattering in Solids*, ed. by J.L. Birman and H.Z. Cummins (Plenum Publ. Co., New York, 1979).
281. Electronic Properties of Clean and Oxygen Covered (100) Cleaved Surfaces of PbS  
 T. Grandke and M. Cardona  
*Surf. Science* **92**, 385 (1980).

282. The Pressure-Dependence of the Direct Absorption Edge on InP  
 H. Müller, R. Trommer, M. Cardona, and P. Vogl  
*Phys. Rev. B* **21**, 4879 (1980).
283. Dependence of the Phonon Spectrum of InP on Hydrostatic Pressure  
 R. Trommer, H. Müller, M. Cardona, and P. Vogl  
*Phys. Rev. B* **21**, 4869 (1980).
284. Raman Scattering by LO-Phonon-Plasmon Coupled Modes in p-Type GaAs: Wave-Vector Non-Conservation  
 D. Olego and M. Cardona  
*Solid State Commun.* **32**, 375 (1979).
285. Photoemission Spectroscopy of Amorphous Hydrogenated Germanium  
 K.J. Gruntz, L. Ley, M. Cardona, R. Johnson, G. Harbecke, and B. von Roedern  
*J. Non-Cryst. Solids* **35&36**, 453 (1980).
286. The Hydrogen Content of a-Ge:H and a-Si:H as Determined by IR-Spectroscopy, Gas Evolution, and Nuclear Reaction Techniques  
 C.J. Fang, K.J. Gruntz, M. Cardona, F.J. Demond, G. Müller, and S. Kalbitzer  
*J. Non-Cryst. Solids* **35&36**, 255 (1980).
287. Luminescence above the Gap in Heavily Zn-Doped GaAs  
 D. Olego and M. Cardona  
*Solid State Commun.* **32**, 1027 (1979).
288. Intra- and Interband Raman Scattering by Free-Carriers in Heavily Doped p-Si  
 M. Chandrasekhar, U. Rössler, and M. Cardona  
*Phys. Rev. B* **22**, 761 (1980).
289. Real and Imaginary Elasto-Optic Constants of Silicon  
 M.H. Grimsditch, E. Kisela, and M. Cardona  
*phys. stat. sol. (a)* **60**, 135 (1980).
290. Photoluminescence in Heavily Doped GaAs – I: Temperature and Hole Concentration Dependence  
 D. Olego and M. Cardona  
*Phys. Rev. B* **22**, 886 (1980).
291. Photoluminescence in Heavily-Doped GaAs – II. Hydrostatic Pressure Dependence  
 D. Olego, M. Cardona, and H. Müller  
*Phys. Rev. B* **22**, 894 (1980).
292. Pressure-Induced Phase Transitions and Shifts in the Absorption Edge of CuCl  
 H. Müller, S. Ves, H.D. Hochheimer, A. Jayaraman, and M. Cardona  
*Phys. Rev. B* **22**, 1052 (1980).
293. Intra- and Inter-Valence-Band Electronic Raman Scattering in Heavily Doped p-GaAs  
 D. Olego, M. Cardona, and U. Rössler  
*Phys. Rev. B* **22**, 1905 (1980).
294. Intra- and Interband Raman Scattering by Free Carriers in Heavily Doped p-Si  
 M. Chandrasekhar, U. Rössler, and M. Cardona  
*Phys. Rev. B* **22**, 761 (1980).

295. Resonant Raman Scattering in Tetrahedral Semiconductors  
M. Cardona  
in *Raman Spectroscopy*, ed. by W.F. Murphy (North Holland, Amsterdam, 1980), p. 14.
296. Infrared Spectrum and Structure of Hydrogenated Amorphous Silicon  
H. Shanks, C.J. Fang, L. Ley, M. Cardona, F.J. Demond, and S. Kalbitzer  
phys. stat. sol. (b) **100**, 43 (1980).
297. A Study of the Localized Vibrations of Boron in Heavily-Doped Si (B)  
M. Chandrasekhar, H.R. Chandrasekhar, M. Grimsditch, and M. Cardona  
Phys. Rev. B **22**, 4825 (1980).
298. Far-Infrared Absorption of Pure and Hydrogenated a-Ge and a-Si  
S.C. Shen, C.J. Fang, M. Cardona, and L. Genzel  
Phys. Rev. B **22**, 2913 (1980).
299. Resonance in the Raman Scattering of CaF<sub>2</sub>, SrF<sub>2</sub>, BaF<sub>2</sub> and Diamond  
M. Grimsditch, M. Cardona, J.M. Calleja, and F. Meseguer  
J. of Raman Spectroscopy **1**, 77 (1981).
300. The Bonding of Fluorine in Amorphous Hydrogenated Si  
C.J. Fang, L. Ley, H.R. Shanks, K.J. Gruntz, and M. Cardona  
Phys. Rev. B **22**, 2913 (1980).
301. Pressure-Dependence of the Raman Modes and Pressure-Induced Phase Changes in CuGaS<sub>2</sub>  
and AgGaS<sub>2</sub>  
C. Carbone, D. Olego, A. Jayaraman, and M. Cardona  
Phys. Rev. B **22**, 3877 (1980).
302. Theory of the Temperature-Dependence of the Direct Gap of Germanium  
P.B. Allen and M. Cardona  
Phys. Rev. B **23**, 1495 (1981). Erratum: Phys. Rev. B **24**, 7479 (1981).
303. Absolute Cross-Section for Raman Scattering by Phonons in Silicon  
M. Grimsditch and M. Cardona  
phys. stat. sol. (b) **102**, 1155 (1980).
304. Some Properties of Si, Ge, and III-V Compounds  
M. Cardona  
for the *Landolt-Börnstein Tables*, New Series, Group III, Vol. 17a, Semiconductors, ed. by  
O. Madelung (Springer Verlag, Berlin, Heidelberg, New York, 1982).
305. Laser-Modulated Absorption in Diamond  
E. Anastassakis, M. Grimsditch, and M. Cardona  
J. Phys. C **13**, 6421 (1980).
306. Angular Resolved UV Photoemission of the PbTe(111) Surface  
H. Höchst, L. Ley, and M. Cardona  
J. Phys. Soc. Japan **49**, Suppl. A (1980).
307. Infrared and Photoemission Spectra of Amorphous Fluorinated Silicon  
L. Ley, H.R. Shanks, C.J. Fang, K.J. Gruntz, and M. Cardona  
J. Phys. Soc. Japan **49**, Suppl. A (1980).
308. Light Scattering by Free-Electrons and Electron-Phonon Coupled Modes in Semiconductors  
M. Cardona  
J. Phys. Soc. Japan **49**, Suppl. A (1980), p. 23.

309. Hydrostatic Pressure-Dependence of the Photoluminescence in Heavily Doped GaAs  
 D. Olego, M. Cardona, and H. Müller  
*J. Phys. Soc. Japan* **49**, Suppl. A (1980), p. 129.
310. Local and Quasi-Local Vibrational Modes in Si in Ge  
 S.C. Shen and M. Cardona  
*Solid State Commun.* **36**, 327 (1980).
311. Resonant Spin-Flip Raman Scattering on Donor and Acceptor States in ZnTe  
 Y. Oka and M. Cardona  
*Phys. Rev. B* **23**, 4129 (1981).
312. Study of the Localized Vibrations of Boron in Heavily-Doped Si  
 M. Chandrasekhar, H.R. Chandrasekhar, M. Grimsditch, and M. Cardona  
*Phys. Rev. B* **22**, 4825 (1980).
313. Self-Energy Effects of the Optical Phonons in Heavily-Doped p-GaAs and p-Ge  
 D. Olego and M. Cardona  
*Phys. Rev. B* **23**, 6592 (1981).
314. Infrared Absorption and Raman Spectra of Li-Compensated B-Doped Si  
 M. Cardona, S.C. Shen, and S.P. Varma  
*Phys. Rev. B* **23**, 5329 (1981).
315. Infrared and Far Infrared Absorption of B- and P-Doped Amorphous Si  
 S.C. Shen and M. Cardona  
*Phys. Rev. B* **23**, 5322 (1981).
316. Resonant Brillouin Scattering in CuBr  
 D.P. Vu, Y. Oka, and M. Cardona  
*Phys. Rev. B* **24**, 765 (1981).
317. Internal Strains and Raman-Active Optical Phonons  
 E. Anastassakis and M. Cardona  
*phys. stat. sol. (b)* **104**, 589 (1981).
318. The “Acoustic Local” Mode of H, D, and F in Amorphous Germanium and Silicon  
 S.C. Shen, C.J. Fang, and M. Cardona  
*phys. stat. sol. (b)* **101**, 451 (1980).
319. Pressure-Dependence of the Optical Properties and the Band Structure of the Copper and Silver Halides  
 S. Ves, D. Götzel, M. Cardona, and H. Overhof  
*Phys. Rev. B* **24**, 3073 (1981).
320. A New Application of the Diamond Anvil Cell: Measurements under Uniaxial Stress  
 S. Ves and M. Cardona  
*Solid State Commun.* **38**, 1109 (1981).
321. Absolute Raman Scattering Efficiencies of Some Zinc-Blende and Fluorite-Type Materials  
 J.M. Calleja, H. Vogt, and M. Cardona  
*Phil. Mag. A* **45**, 239 (1982).
322. La Radiacion del Sincrotron y sus Aplicaciones  
 M. Cardona  
*Anales Real Sociedad Física y Química* (1982), p. 121

323. Raman Scattering by Two LO-Phonons near  $\Gamma$  in GaAs  
 D. Olego and M. Cardona  
 Solid State Commun. **39**, 1071 (1981).
324. Raman Scattering by Coupled LO-Phonon-Plasmon Modes and Forbidden TO-Phonon Raman Scattering in Heavily Doped p-Type GaAs  
 D. Olego and M. Cardona  
 Phys. Rev. **24**, 7217 (1981).
325. An Uniaxial Stress Apparatus for Single Crystal X-Ray Diffraction on a Four-Circle Diffractometer: Application to Silicon and Diamond  
 H. d'Amour, W. Denner, H. Schulz, and M. Cardona  
 J. Appl. Cryst. **15**, 148 (1982).
326. Temperature Dependence of the Optical Phonons and Transverse Effective Charge in 3C-SiC  
 D. Olego and M. Cardona  
 Phys. Rev. B **25**, 3889 (1982).
327. Pressure Dependence of the Optical Phonons and Transverse Effective Charge in 3C-SiC  
 D. Olego, M. Cardona, and P. Vogl  
 Phys. Rev. B **25**, 3878 (1982).
328. Simulation of Long-Wavelength Optical Phonons by Generalized Internal Strains  
 E.M. Anastassakis and M. Cardona  
 Journal de Physique C **6**, 537 (1981).
329. Uniaxial Stress Measurements with the Diamond Anvil Cell: Copper Halides  
 S. Ves, A. Blacha, and M. Cardona  
 in *High Pressure in Research and Industry*, ed. by C.M. Backman, T. Johansson, and L. Tegnér, p. 560 (1982).
330. Pressure Dependence of Raman Phonons of Ge and 3C-SiC  
 D. Olego and M. Cardona  
 Phys. Rev. B **25**, 1151 (1982).
331. Volume- and Temperature-Dependence of the Transverse Charge and the Ionicity of Tetrahedral Semiconductors  
 D. Olego, M. Cardona, and P. Vogl  
 Journal de Physique, Colloque C6, supplément au n° 12, 42 (1981).
332. Self-Energy of Phonons Interacting with Free Carriers in Silicon  
 L. Pintschovius, J.A. Vergés, and M. Cardona  
 J. Physique C **6**, 634 (1981).
333. Transferability of the Bond Polarizabilities: From Saturated Hydrocarbons to Diamond  
 D. Bermejo, S. Montero, M. Cardona, and A. Muramatsu  
 Solid State Commun. **42**, 153 (1982).
334. Infrared Spectroscopy of Amorphous Hydrogenated GaAs: Evidence for H-Bridges  
 Z.P. Wang, L. Ley, and M. Cardona  
 Phys. Rev. B **26**, 3249 (1982).
335. Infrared Absorption Spectra B- and P-Doped a-Si: Effects of Annealing  
 S.C. Shen, Q.L. Jue, and M. Cardona  
 Appl. Phys. A **28**, 215 (1982).

336. Spin-Orbit Splitting of the Copper Halides and its Volume Dependence  
 A. Blacha, M. Cardona, N.E. Christensen, S. Ves, and H. Overhof  
 Solid State Commun. **43**, 183 (1982).
337. Double-Beam Optically Compensated Fourier Transform Spectrometer (FTS) and its Application to the Vibrational Spectra of Amorphous and Crystalline Si and Ge  
 S.C. Shen, M. Cardona, and L. Genzel  
 SPIE Vol. **289**, 17 (1981), Fourier Transform Infrared Spectroscopy.
338. Optical Deformation Potentials of the Copper Halides  
 F. Meseguer, J.C. Merle, and M. Cardona  
 Solid State Commun. **43**, 511 (1982).
339. Absolute Hydrostatic Deformation Potentials of Tetrahedral Semiconductors  
 J.A. Vergés, D. Glötzel, M. Cardona, and O.K. Andersen  
 phys. stat. sol. (b) **113**, 519 (1982).
340. Self-Energies of Phonons in Heavily Doped n- and p-Type Silicon  
 L. Pintschovius, J.A. Vergés, and M. Cardona  
 Phys. Rev. B **26**, 5658 (1982).
341. Internal Strain Parameter of Silicon and GaAs and Planar Force Constants  
 M. Cardona, K. Kunc, and R.M. Martin  
 Solid State Commun. **44**, 1205 (1982).
342. X-Rays Investigations of the  $\alpha \rightarrow \beta$  Phase Transition in the  $\text{Ge}_x\text{Si}_{1-x}$  Solid Solutions at High Pressure  
 A. Werner, J.A. Sanjurjo, and M. Cardona  
 Solid State Commun. **44**, 155 (1982).
343. Resonance-Raman Scattering and Electron-Phonon Coupling in the Cuprous Halides  
 F. Meseguer, J.C. Merle, and M. Cardona  
 Proceedings of the XVI. International Conference on Physics of Semiconductors, Montpellier, Sept. 6-10, 1982, Physica **117B & 118B**, 374 (1983).
344. Volume Dependence of the Spin-Orbit Splitting in the Copper Halides  
 A. Blacha, M. Cardona, N.E. Christensen, S. Ves, and M. Cardona  
 Proceedings of the XVI. International Conference on Physics of Semiconductors, Montpellier, Sept. 6-10, 1982, Physica **117B & 118B**, 63 (1983).
345. Optical Constants of Pure and Heavily Doped Silicon and Germanium: Electronic Interband Transitions  
 L. Viña and M. Cardona  
 Proceedings of the XVI. International Conference on Physics of Semiconductors, Montpellier, Sept. 6-10, 1982, Physica **117B & 118B**, 356 (1983).
346. Infrared Spectroscopy of Amorphous Hydrogenated GaAs, GaP, GaSb: Evidence for Ga-H-Ga Bridges  
 Z.P. Wang, L. Ley, and M. Cardona  
 Proceedings of the XVI. International Conference on Physics of Semiconductors, Montpellier, Sept. 6-10, 1982, Physica **117B & 118B**, 968 (1983).
347. Temperature Dependence of the Direct Gap of Si and Ge  
 P.B. Allen and M. Cardona  
 Phys. Rev. B **27**, 4760 (1983).

348. Vibrational Spectra of Hydrogen in Silicon and Germanium  
 M. Cardona  
*phys. stat. sol. (b)* **118**, 463 (1983).
349. *Light Scattering in Solids II: Basic Concepts and Instrumentation*  
 Eds. M. Cardona and G. Güntherrodt  
 (Springer Verlag, Berlin, Heidelberg, New York, Vol. 50, (1982).
350. *Light Scattering in Solids III: Recent Results*  
 Eds. M. Cardona and G. Günterrod  
 (Springer Verlag, Berlin, Heidelberg, New York, 1982).
351. Raman Spectra of Two New Modifications of Germanium: Allo-Germanium and 4H-Ge  
 E. López-Cruz and M. Cardona  
*Solid State Commun.* **45**, 787 (1983).
352. Vibrational Spectra of a-Si:H, a-Si:F, and a-Ge:F: Bethe Lattice Calculations  
 E. Martínez and M. Cardona  
*Phys. Rev. B* **28**, 880 (1983).
353. Effects of Uniaxial Strain on the Exciton Spectra of CuCl, CuBr, and CuI  
 A. Blacha, S. Ves, and M. Cardona  
*Phys. Rev. B* **27**, 6346 (1983).
354. Temperature Dependence of the Elastic Constants in CsCN Measured by Brillouin Scattering  
 K. Strössner, W. Henkel, H.D. Hochheimer, and M. Cardona  
*Solid State Commun.* **47**, 567 (1983).
355. The Electronic Structure of Heavily-Doped Ion Implanted Laser Annealed Silicon: Ellipsometric Measurements  
 L. Viña, C. Umbach, A. Compaan, M. Cardona, and A. Axmann  
 Materials Research Society Conference, Strasbourg, May, 1983.
356. Raman Scattering in Ultra-Heavily Doped Si and Ge: The Dependence on Free-Carrier and Substitutional-Dopant Densities  
 A. Compaan, G. Contreras, M. Cardona, and A. Axmann  
 Materials Research Society Conference, Strasbourg, May, 1983.  
*J. de Physique, Colloque C5-197* (1983).
357. The  $E_1 - E_1 + \Delta_1$  Transitions in Bulk Grown and in Implanted Laser Annealed Heavily Doped Germanium: Luminescence  
 G. Contreras, A. Compaan, J. Wagner, M. Cardona, and A. Axmann  
 Materials Research Society Conference, Strasbourg, May, 1983.  
*J. de Physique, Colloque C5-55* (1983).
- 357a. Raman Studies of the P-Local Mode Vibration in P- Implanted, Laser-Annealed Ge  
 G. Contreras, A. Compaan, and A. Axmann  
 Materials Research Society Conference, Strasbourg, May, 1983.
358. Dependence on Volume of the Phonon Frequencies and the IR- Effective Charges of Several III-V Semiconductors  
 J.A. Sanjurjo, E. López-Cruz, P. Vogl, and M. Cardona  
*Phys. Rev. B* **28**, 4579 (1983).
359. Temperature-Dependence of the First-Order Raman Scattering by Phonons in Si, Ge, and  $\alpha$ -Sn: Anharmonic Effects  
 J. Menéndez and M. Cardona  
*Phys. Rev. B* **29**, 2051 (1984).

360. Absolute Efficiency and Dispersion of Raman Scattering by Phonons in Silicon  
 J. Wagner and M. Cardona  
 Solid State Commun. **48**, 301 (1983).
361. Interference Between Allowed and Forbidden Raman Scattering by LO-Phonons in GaAs  
 J. Menéndez and M. Cardona  
 Phys. Rev. Lett. **51**, 1297 (1983).
362. The Stretching Modes of the Si-H and Ge-H Bonds in Amorphous and Crystalline Ge and Si  
 H. Richter, J. Trodahl, and M. Cardona  
 Proc. 10th Intl. Conf. on Amorphous and Liquid Semiconductors, Tokyo, Japan, 1983  
 J. of Non-Crystl. Solids **59 & 60**, 181 (1983).
363. Resonant Brillouin Scattering in Cadmium Telluride  
 R. Sooryakumar, M. Cardona, and J.C. Merle  
 Solid State Commun. **48**, 581 (1983).
364. Absorption Edge of Ultraheavily-Doped Si  
 L. Viña, C. Umbach, M. Cardona, A. Compaan, and A. Axmann  
 Solid State Commun. **48**, 457 (1983).
365. Electron-Phonon Interaction and Phonon Softening in Ferroelectrics and Semiconductors  
 M. Cardona and P. Vogl  
 Ferroelectrics **53**, 49 (1984).
366. Raman Spectrum and Lattice Dynamics of GaGeTe  
 E. López-Cruz, M. Cardona, and E. Martínez  
 Phys. Rev. B **29**, 5774 (1984).
367. Effect of Heavy Doping on the Optical Properties and the Band Structure of Silicon  
 L. Viña and M. Cardona  
 Phys. Rev. B **29**, 6739 (1984).
368. Effect of Free-Carriers on the Raman Frequency of Ultraheavily-Doped n-Si  
 G. Contreras, A.K. Sood, M. Cardona, and A. Compaan  
 Solid State Commun. **49**, 303 (1984).
369. Brillouin Study of Acoustic Phonon Softening and Optical Absorption Coefficients of Ultraheavily-Doped n-Si  
 A.K. Sood and M. Cardona  
 Solid State Commun. **49**, 299 (1984).
370. Effective Charges and their Pressure-Dependence in  $\alpha$ LiIO<sub>3</sub>  
 F. Cerdeira, V. Lemos, F.E.A. Melo, and M. Cardona  
 phys. stat. sol. (b) **122**, 53 (1984).
371. Light Scattering by Plasmons in Germanium  
 F. Cerdeira, N. Mestres, and M. Cardona  
 Phys. Rev. B **29**, 3737 (1984).
372. Germanium Extremely Heavily-Doped by Ion-Implantation and Laser Annealing: A Photoluminescence Study  
 J. Wagner, C. Contreras, A. Compaan, M. Cardona, and A. Axmann  
 Mat. Res. Soc. Symp. Proc. **23**, 147 (1984).

373. Resonant Raman Scattering by Plasmons in n-Type Ge  
 N. Mestres, F. Cerdeira, and M. Cardona  
 Solid State Commun. **49**, 1103 (1984).
374. Deformation Potentials of  $\vec{k} = 0$  States of Tetrahedral Semiconductors  
 A. Blacha, H. Presting, and M. Cardona  
 phys. stat. sol. (b) **126**, 11 (1984).
375. Dependence of Raman Frequencies and Scattering Intensities on Pressure in GaSb, InAs, and InSb Semiconductors  
 K. Aoki, E. Anastassakis, and M. Cardona  
 Phys. Rev. B **30**, 681 (1984).
376. Effect of Pressure on Raman Scattering Efficiency of GaP  
 K. Aoki and M. Cardona  
 phys. stat. sol. (b) **122**, 441 (1984).
377. Pressure Dependence of the  $E_1$  Gap in GaSb - Resonant Raman Technique  
 K. Aoki, A.K. Sood, H. Presting, and M. Cardona  
 Solid State Commun. **50**, 287 (1984).
378. Birefringence Induced by Spatial Dispersion in KI  
 F. Meseguer, M. Cardona, and A. Cintas  
 Solid State Commun. **50**, 371 (1984).
379. Resonant Brillouin Scattering in Cadmium Telluride  
 J.C. Merle, R. Sooryakumar and M. Cardona,  
 Phys. Rev. B **30**, 3261 (1984).
380. Resonant Raman Scattering in CuCl in the Region of the Edge Excitations  
 F. Meseguer, J.C. Merle, and M. Cardona  
 Solid State Commun. **50**, 709 (1984).
381. Ellipsometric Studies of Electronic Interband Transitions in  $Cd_xHg_{1-x}Te$   
 L. Viña, C. Umbach, M. Cardona, and L. Vodopyanov  
 Phys. Rev. B **29**, 6752 (1984).
382. Stress-Induced Splitting of the Conduction Bands of GaAs and GaSb  
 M. Cardona, V.A. Maruschak, and A.N. Titkov  
 Solid State Commun. **50**, 701 (1984).
383. Dependence of Raman Frequencies and Scattering Intensities on Pressure in Small-Band-Gap Semiconductors  
 K. Aoki, E. Anastassakis, and M. Cardona  
 Proc. of the Int. Conf. on Solids under High Pressure, Izu-Nagaoka, Jan. 1984.
384. Splitting on the Conduction Band of GaAs for  $\vec{k}$  Along [110]  
 N.E. Christensen and M. Cardona  
 Solid State Commun. **51**, 491 (1984).
385. Temperature Dependence of the Dielectric Function of Germanium  
 L. Viña, S. Logothetidis, and M. Cardona  
 Phys. Rev. B **30**, 1979 (1984).
386. *Light Scattering in Solids IV: Electronic Scattering, Spin Effects, SERS, and Morphic Effects*  
 G. Abstreiter, M. Cardona, A. Pinczuk, ed. by M. Cardona and G. Güntherodt  
 (Springer Verlag, Berlin, Heidelberg, New York, Vol. 54, (1984)).

387. Allowed and Forbidden Scattering by LO-Phonons in Tetrahedral Semiconductors  
 M. Cardona and J. Menéndez  
 Proc. 9th Int. Conf. on Raman Spectroscopy, Tokyo, Japan, 1984.
388. Lattice Dynamics of Hittorf's Phosphorus and Identification of Structural Groups and Defects in Amorphous Red Phosphorus  
 G. Fasol, M. Cardona, W. Hönle, and H.G. von Schnering  
 Solid State Commun. **52**, 307 (1984).
389. Temperature Dependence of the Dielectric Function and the Interband Critical Points of InSb  
 S. Logothetidis, L. Viña, and M. Cardona  
 Phys. Rev. B **31**, 947 (1985).
390. Dielectric Function of  $\alpha$ -Sn and its Temperature Dependence  
 L. Viña, H. Höchst, and M. Cardona  
 Phys. Rev. B **31** 958 (1985).
391. Light Scattering in CuCl – Intrinsic and Extrinsic Effects  
 J.C. Merle, F. Meseguer, and M. Cardona  
 Proc. of Int. Conf. on the Physics of Semiconductors, ed. by J.D. Chadi and W.A. Harrison (Springer, New York, 1985), p. 1193.
392. Light Scattering Due to Intervalley Electron Density Fluctuations in n-Si  
 G. Contreras, A.K. Sood, and M. Cardona  
 Proceedings, ICPS, ed. by J.D. Chadi and W.A. Harrison (Springer, New York, 1985), p. 1129.
393. Al 2p-Core Exciton in AlSb  
 R.L. Johnson, J.H. Fock, L. Ley, and M. Cardona  
 Proceedings, ICPS, ed. by J.D. Chadi and W.A. Harrison Springer, New York, 1985), p. 1239.
394. Light Scattering by Plasmons in Heavily Doped n-Type Ge and Si  
 N. Mestres, F. Cerdeira, and M. Cardona  
 Proceedings, ICPS, ed. by J.D. Chadi and W.A. Harrison (Springer, New York, 1985), p. 1113.
395. Theory of the Resonant Raman Scattering by Two Phonons in Germanium and Silicon  
 M. Cardona and P.B. Allen  
 Helv. Phys. Acta **58**, 307 (1985).
396. Allowed and Forbidden Scattering by LO Phonons: Interference Effects  
 J. Menéndez and M. Cardona  
 Pure and Applied Chemistry **57**, 181 (1985).
397. Electron and Phonon Self-Energies in Heavily-Doped Germanium and Silicon  
 M. Cardona  
 Int. Conf. on Heavy Doping and the Metal-Insulator Transition in Semiconductors, Santa Cruz, USA, Solid State Electronics **28**, 31 (1985).
398. This week's Citation Classic – Electroreflectance at a Semiconductor-Electrolyte Interface  
 M. Cardona, K.L. Shaklee, and F.H. Pollak  
 Current Contents **24**, 14 (1984).
399. Pressure Dependence of Dynamical Charges and Ionicity of Semiconductors  
 M. Cardona  
 Proceedings, Physics and Physicochemistry of Highly Condensed Matter, Sept. 11-14, 1986, J. Physique C**8**, 29 (1984).

400. Temperature Dependence of Band Gaps in Si and Ge  
 P. Lautenschlager, P.B. Allen, and M. Cardona  
*Phys. Rev. B* **31**, 2163 (1985).
401. Ellipsometric Study of Interband Transitions in Orthorhombic GeS  
 S. Logothetidis, L. Viña, and M. Cardona  
*Phys. Rev. B* **31**, 2180 (1985).
402. Interference Effects: A Key to Understanding Forbidden Raman Scattering by LO-Phonons in GaAs  
 J. Menéndez and M. Cardona  
*Phys. Rev. B* **31**, 3696 (1985).
403. Resonance Raman Scattering by LO-Phonons in  $Cd_xHg_{1-x}Te$  at the  $E_0 + \Delta_0$  Gap  
 J. Menéndez, M. Cardona, and L.K. Vodopyanov  
*Phys. Rev. B* **31**, 3705 (1985).
404. Resonant Raman Scattering in Heavily Bulk-Doped and Ion-Implanted Laser-Annealed n-Type Germanium  
 A.K. Sood, G. Contreras, and M. Cardona  
*Phys. Rev. B* **31**, 3760 (1985).
405. First-Order Raman Scattering in Germanium Resonant with the  $E_0$  Gap  
 J. Wagner and M. Cardona  
*Solid State Commun.* **53**, 845 (1985).
406. Vibrational Local Mode of Al-Implanted and Laser Annealed Ge  
 G. Contreras, M. Cardona, and A. Compaan  
*Solid State Commun.* **53**, 857 (1985).
407. Raman Scattering Studied in Phosphorus Implanted and Laser Annealed Boron-Doped Si  
 G. Contreras, M. Cardona, and A. Axmann  
*Solid State Commun.* **53**, 861 (1985).
408. Raman Spectroscopy as Applied to the Physics and Technology of Semiconductors  
 M. Cardona  
 Proceedings of 1984 Seoul Int. Symposium on the Physics of Semiconductors and Applications (Korean Physical Society, 1984), p. 43.
409. Dielectric Function and Interband Transitions in Semiconductors  
 M. Cardona  
 in *Basic Properties of Optical Materials*, Topical Conference on Basic Properties of Optical Materials, Gaithersburg, Maryland, USA, May 7-9, 1985 (NBS, Special Publications 697, 1985), p. 188.
410. Resonance Raman Scattering by Confined LO- and TO-Phonons in GaAs-AlAs Superlattices  
 A.K. Sood, J. Menéndez, M. Cardona, and K. Ploog  
*Phys. Rev. Lett.* **54**, 2111 (1985).
411. Interface Vibrational Modes in GaAs-AlAs Superlattices  
 A.K. Sood, J. Menéndez, M. Cardona, and K. Ploog  
*Phys. Rev. Lett.* **54**, 2115 (1985).
412. Effects of Strains on the Dynamic Effective Charge of III-V Semiconductors  
 E. Anastassakis and M. Cardona  
*phys. stat. sol. (b)* **129**, 101 (1985).

413. Raman Piezospectroscopy in GaAs Revisited  
 A.K. Sood, E. Anastassakis, and M. Cardona  
*phys. stat. sol. (b)* **129**, 505 (1985).
414. Raman Scattering by Intervalley Carrier Density Fluctuations in n-Si: Intervalley and Intravalley Mechanisms  
 G. Contreras, A.K. Sood, and M. Cardona  
*Phys. Rev. B* **32**, 924 (1985).
415. Raman Scattering by Intervalley Carrier Density Fluctuations in n-Ge: Uniaxial Stress and Resonance Effects  
 G. Contreras, A.K. Sood, and M. Cardona  
*Phys. Rev. B* **32**, 930 (1985).
416. Resonance Raman Scattering in InSb Revisited: Deformation Potentials and Interference Effects at the  $E_1$  Gap  
 J. Menéndez, L. Viña, M. Cardona, and E. Anastassakis  
*Phys. Rev. B* **32**, 3966 (1985).
417. Second-Order Raman Scattering by Confined Optical Phonons and Interface Vibrational Modes in GaAs-AlAs Superlattices  
 A.K. Sood, J. Menéndez, M. Cardona, and K. Ploog  
*Phys. Rev. B* **32**, 1412 (1985).
418. Spectroscopic Study of  $\text{NH}_4\text{ZnF}_3$  and  $\text{NH}_4\text{MnF}_3$  Perovskites  
 J. Bartolomé, F. Palacio, J.M. Calleja, F. Agullo Rueda, M. Cardona, and R. Migoni, *J. Phys. C* **18**, 6083 (1985).
419. Dependence of the Direct Energy Gap of GaP on Hydrogenated Pressure  
 S. Ves, K. Strössner, C.K. Kim, and M. Cardona  
*Solid State Commun.* **55**, 327 (1985).
420. Ellipsometric Studies of the Dielectric Function of  $\text{Cd}_{1-x}\text{Mn}_x\text{Te}$  Alloys  
 P. Lautenschlager, S. Logothetidis, L. Viña, and M. Cardona  
*Phys. Rev. B* **32**, 3811 (1985).
421. Resonance Raman Scattering in GaAs/AlAs Superlattices  
 A.K. Sood, J. Menéndez, M. Cardona, and K. Ploog  
 in *Semiconductors Quantum Wells and Superlattices*, ed. by K. Ploog and N.T.Linh (Ed. de Physique, Les Ulis, 1986), p. 141.
422. Physical Properties of Ion-Implanted Laser Annealed n-Type Germanium  
 G. Contreras, L. Tapfer, A.K. Sood, and M. Cardona  
*phys. stat. sol. (b)* **131**, 475 (1985).
423. The Refractive Index of GaP and its Pressure Dependence  
 K. Strössner, S. Ves, and M. Cardona  
*Phys. Rev. B* **32**, 6614 (1985).
424. Electronic Raman Scattering in Heavily-Doped p-Type Germanium  
 J. Wagner and M. Cardona  
*Phys. Rev. B* **32**, 8071 (1985).
425. Resonant Raman Scattering by Spin-Density Fluctuations in n-Type Germanium  
 N. Mestres and M. Cardona  
*Phys. Rev. Lett.* **55**, 1132 (1985).

427. Temperature Dependence of the Dielectric Function and the Interband Critical Points in Orthorhombic GeS  
 S. Logothetidis, P. Lautenschlager, and M. Cardona  
*Phys. Rev.* **33**, 1110 (1986).
428. Electronic Structure of the High-Pressure Modifications of CuCl, CuBr, and CuI  
 A. Blacha, N.E. Christensen, and M. Cardona  
*Phys Rev. B* **33**, 2413 (1986).
429. Pressure Dependence of the Lowest Direct Absorption Edge of ZnSe  
 S. Ves, K. Strössner, N.E. Christensen, C.K. Kim, and M. Cardona  
*Solid State Commun.* **56**, 479 (1985).
430. A Synchrotron Radiation Study of  $\text{Cd}_{1-x}\text{Mn}_x\text{Te}$  ( $0 \leq x \leq 0.65$ )  
 M. Taniguchi, L. Ley, R.L. Johnson, J. Ghijssen, and M. Cardona  
*Phys. Rev. B* **33**, 1206 (1986).
431. Vibrational Spectra of a-Si  
 M. Cardona  
 Proc. of the 2nd Int. Conf. on Phonon Physics, Budapest, ed. by J. Kollár, N. Króo, N. Menyhárd, and T. Siklós (World Scientific Pub. Co., Singapore, 1985), p. 2.
432. Vibrations in Amorphous Silicon and its Alloys  
 M. Cardona  
*J. of Molecular Structure* **141**, 93 (1986).
433. High Pressure X-Ray Investigations of Phase Transitions in  $\text{Cd}_{1-x}\text{Mn}_x\text{Te}$   
 K. Strössner, S. Ves, W. Dietrich, W. Gebhard, and M. Cardona  
*Solid State Commun.* **56**, 563 (1985).
434. Phonon-Induced Lifetime Broadenings of Electronic States and Critical Points in Si and Ge  
 P. Lautenschlager, P.B. Allen, and M. Cardona  
*Phys. Rev. B* **33**, 5501 (1986).
435. Absorption Edge of  $\text{Zn}_{1-x}\text{Mn}_x\text{Te}$  Under Hydrostatic Pressure  
 S. Ves, K. Strössner, W. Gebhardt, and M. Cardona  
*Phys. Rev. B* **33**, 4077 (1986).
436. Pressure Dependence of the Optical Phonon Frequencies and the Transverse Effective Charge in AlSb  
 S. Ves, K. Strössner, and M. Cardona  
*Solid State Commun.* **57**, 483 (1986).
437. Light Emission at the  $E_1$  and  $E_1 + \Delta_1$  Gaps in Heavily-Doped p-Type Ge and GaAs  
 N. Mestres and M. Cardona  
*Solid State Commun.* **56**, 549 (1985).
438. Optical and Elastic Properties of Ultraheavily Doped Silicon  
 A.K. Sood and M. Cardona  
*Solid State Electr.* **28**, 210 (1985).
439. Optical Absorption in Cubic  $\text{Zn}_{1-x}\text{Mn}_x\text{Se}$  under Hydrostatic Pressure  
 S. Ves, K. Strössner, W. Gebhardt, and M. Cardona  
*Solid State Commun.* **57**, 335 (1986).

440. Resonant Raman Scattering and Interference Effects of LO-Phonons at the  $E_0 + \Delta_0$  Gap of InP  
 W. Kauschke and M. Cardona  
*Phys. Rev. B* **33**, 5473 (1986).
441. Dependence of the Direct and Indirect Gap of AlSb on Hydrostatic Pressure  
 K. Strössner, S. Ves, C.K. Kim, and M. Cardona  
*Phys. Rev. B* **33**, 4044 (1986).
442. Optical Properties of Pure and Ultra-Heavily Doped Germanium: Theory and Experiment  
 L. Viña and M. Cardona  
*Phys. Rev. B* **34**, 2586 (1986).
443. Deformation Potentials of the Direct Gap of Diamond  
 M. Cardona and N.E. Christensen  
*Solid State Commun.* **58**, 421 (1986).
444. Temperature Dependence of the Dielectric Function and the Interband Critical Points of CdSe  
 S. Logothetidis, M. Cardona, P. Lautenschlager, and M. Garriga  
*Phys. Rev. B* **34**, 2458 (1986).
445. Comment on the article: g-Factor Anisotropy of Conduction Electrons in InSb  
 (by Y.F. Chen, M. Dombrowska, and J.K. Furdyna, *Phys. Rev. B* **31**, 7989 (1986))  
 M. Cardona  
*Phys. Rev. B* **34**, 7402 (1986).
446. The Terms Linear in  $\vec{k}$  in the Band Structures of Zincblende-Type Semiconductors  
 M. Cardona, N.E. Christensen, and G. Fasol  
*Phys. Rev. Lett.* **56**, 2831 (1986).
447. Física del Estado Sólido  
 M. Cardona  
*Encyclopedie Larousse*, Spanish Edition.
448. Temperature Dependence of the Fundamental Energy Gap in AlAs  
 C.K. Kim, P. Lautenschlager, and M. Cardona  
*Solid State Commun.* **59**, 797 (1986).
449. Spin Splitting of the Conduction Band of InSb along [110]  
 M. Cardona, N.E. Christensen, M. Dobrowolska, J.K. Furdyna, and S. Rodriguez  
*Solid State Commun.* **60**, 17 (1986).
450. Theory of Infrared Absorption in Amorphous Silicon  
 K. Winer and M. Cardona  
*Solid State Commun.* **60**, 207 (1986).
451. Spin Orientation by Optical Pumping and Relaxation of Holes near the  $E_0 + \Delta_0$  Gap of InP and GaSb  
 W. Kauschke, N. Mestres, and M. Cardona  
*Proceedings of the Eighteenth International Conference on the Physics of Semiconductors*, Stockholm, 1986, ed. by O. Engström (World Scientific, Singapore, 1987), p. 1473.
452. Inversion Asymmetry Effects on the Spin-Orbit Coupling of Zincblende-Type Semiconductors  
 M. Cardona, N.E. Christensen, and G. Fasol  
*Proceedings of the Eighteenth International Conference on the Physics of Semiconductors*, Stockholm, 1986, ed. by O. Engström (World Scientific, Singapore, 1987), p. 1133.

453. Dipole-Allowed Scattering by Plasmons and its Interference with Forbidden Scattering GaSb  
 N. Mestres, W. Kauschke, M. Cardona, and T. Suemoto  
 Proceedings of the Eighteenth International Conference on the Physics of Semiconductors,  
 Stockholm, 1986, ed. by O. Engström (World Scientific, Singapore, 1987), p. 1705.
454. Folded, Confined, Interface, and Surface Vibrational Modes in Semiconductors Superlattices  
 M. Cardona  
 Lectures in Surface Science, ed. by G.R. Castro and M. Cardona (Springer Verlag, Heidelberg,  
 1987), p. 2.
455. Raman Phonon Piezospectroscopy in GaAs: Infrared Measurements  
 P. Wickboldt, E. Anastassakis, R. Sauer, and M. Cardona  
*Phys. Rev. B* **35**, 1362 (1987).
456. Pressure Dependence of the Absorption in  $Zn_{1-x}Mn_xTe$  and  $Zn_{1-x}Mn_xSe$  and Pressure Induced Phase Transitions in  $Zn_{1-x}Mn_xTe$   
 K. Strössner, S. Ves, W. Hönle, W. Gebhardt, and M. Cardona  
 Proceedings of the Eighteenth International Conference on the Physics of Semiconductors,  
 Stockholm, 1986, ed. by O. Engström (World Scientific, Singapore, 1987), p. 1717.
457. Resonant Raman Scattering by Optical Phonons in GaAs near the  $E_0$  Band-Gap  
 A.K. Sood, W. Kauschke, J. Menéndez, and M. Cardona  
*Phys. Rev. B* **35**, 2886 (1987).
458. Rayleigh Surface Waves in Ultraheavily Doped n-Si  
 A.K. Sood and M. Cardona  
*Solid State Commun.* **60**, 629 (1986).
459. Spin Relaxation of Holes in the Split-Hole Band of InP and GaSb  
 W. Kauschke, N. Mestres and M. Cardona  
*Phys. Rev. B* **37**, 3843 (1987).
460. Stress-Induced Doubly Resonant Raman-Scattering in GaAs  
 F. Cerdeira, E. Anastassakis, W. Kauschke, and M. Cardona  
*Phys. Rev. Lett.* **57**, 3209 (1986).
461. Interband Critical Points of GaAs and Their Temperature Dependence  
 P. Lautenschlager, M. Garriga, S. Logothetidis, and M. Cardona  
*Phys. Rev. B* **35**, 9174 (1987).
462. Acoustic Deformation Potentials and Heterostructure Band Offsets in Semiconductors  
 M. Cardona and N.E. Christensen  
*Phys. Rev. B* **35**, 6182 (1987).
463. Optical Properties of AlAs  
 M. Garriga, P. Lautenschlager, M. Cardona, and K. Ploog  
*Solid State Commun.* **61**, 157 (1987).
464. Pressure Dependence of the Lowest Direct Absorption Edge of ZnTe  
 K. Strössner, S. Ves, C.K. Kim, and M. Cardona  
*Solid State Commun.* **61**, 275 (1987).
465. Resonant Raman Scattering by LO-Phonons near the  $E_0 + \Delta_0$ -Gap of GaSb  
 W. Kauschke and M. Cardona  
*Phys. Rev. B* **35**, 9619 (1987).

466. Resonant Raman Scattering in GaAs-AlGaAs Superlattices: Impurity-Induced Fröhlich Interaction Scattering  
 W. Kauschke, A.K. Sood, M. Cardona, and K. Ploog  
*Phys. Rev. B* **36**, 1612 (1987).
467. Temperature Dependence of the Shifts and Broadenings of the Critical Points in GaAs  
 S. Gopalan, P. Lautenschlager, and M. Cardona  
*Phys. Rev. B* **35**, 5577 (1987).
468. Theory of Infrared Absorption in Silicon  
 K. Winer and M. Cardona  
*Phys. Rev. B* **35**, 8189 (1987).
469. Interference Effects of Raman Scattering by LO-Phonons near the  $E_0 + \Delta_0$ -Gap Studied on  $(\bar{1}\bar{1}3)$ ,  $(1\bar{1}1)$ , and  $(\bar{1}\bar{1}\bar{1})$  Faces of GaAs  
 W. Kauschke, V. Vorlíček, M. Cardona, L. Viña, and W.I. Wang  
*Solid State Commun.* **61**, 487 (1987).
470. Electronic and Vibronic Structure of the  $(\text{GaAs})_1(\text{AlAs})_1$  Superlattices  
 M. Cardona, T. Suemoto, N. E. Christensen, T. Isu, K. Ploog  
*Phys. Rev. B* **36**, 5906 (1987).
471. Interband Transitions of Thin layer GaAs/AlAs Superlattices  
 M. Garriga, M. Cardona, N.E. Christensen, P. Lautenschlager, T. Isu, and K. Ploog  
*Phys. Rev. B* **36**, 3254 (1987).
472. Resonant Raman Scattering by LO-Phonons in  $\text{Al}_x\text{Ga}_{1-x}\text{As}$  ( $x < 0.1$ ): Alloying and Interference Effects  
 W. Kauschke, M. Cardona, and E. Bauser  
*Phys. Rev. B* **35**, 8030 (1987).
473. Deformation Potentials at the Valence Band Top in Semiconductors  
 L. Brey, N.E. Christensen, and M. Cardona  
*Phys. Rev. B* **36**, 2638 (1987).
474. Raman Piezospectroscopic Study of Indium-Hardened GaAs  
 E. Anastassakis and M. Cardona  
*Solid State Commun.* **64**, 543 (1987).
475. Localized Vibrations of Hydrogen and Deuterium in GaAs - A Comparison with Ge and Si  
 J. Tatarkiewicz, A. Król, A. Breitschwerdt, and M. Cardona  
*phys. stat. sol. (b)* **140**, 369 (1987).
476. Phonon Shifts in Ion Bombarded GaAs: Raman Measurements  
 G. Burns, F.H. Dacol, C.R. Wie, E. Burstein, and M. Cardona  
*Solid State Commun.* **62**, 449 (1987).
477. Spectroscopic Ellipsometry with Synchrotron Radiation: Latest Developments  
 J. Barth, R.L. Johnson, S. Logothetidis, M. Cardona, D. Fuchs, and A.M. Bradshaw  
*Proc. SPIE Int. Soc. Opt. Eng.* **733**, 265 (1987).
478. Pressure Dependence of Direct and Indirect Optical Absorption in GaAs  
 A.R. Goñi, K. Strössner, K. Syassen, and M. Cardona  
*Phys. Rev. B* **36**, 1581 (1987).

479. High Pressure X-ray Investigations on 3C-SiC  
 K. Strössner, M. Cardona, and W.J. Choyke  
 Solid State Commun. **63**, 113 (1987).
480. Temperature Dependence of the Interband Critical Point Parameter of InP  
 P. Lautenschlager, M. Garriga, and M. Cardona  
 Phys. Rev. B **36**, 4813 (1987).
481. Temperature Dependence of the Dielectric Function and Interband Critical Points in Silicon  
 P. Lautenschlager, M. Garriga, L. Viña, and M. Cardona  
 Phys. Rev. B **36**, 4821 (1987).
482. Resonant Raman Scattering by Plasmons and LO-Phonons near  $E_1$  and  $E_1 + \Delta_1$  Gaps of GaSb  
 W. Kauschke, N. Mestres, and M. Cardona  
 Phys. Rev. B **36**, 7469 (1987).
483. Resonant Raman Scattering in GaAs-Ga<sub>1-x</sub>Al<sub>x</sub>As Quantum Wells in an Electric Field  
 C. Tejedor, J.M. Calleja, L. Brey, L. Viña, E.E. Méndez, W.I. Wang, M. Staines, and M. Cardona  
 Phys. Rev. B **36**, 6054 (1987).
484. Comment on “Spectroscopy of excited states in In<sub>0.53</sub>Ga<sub>0.47</sub>As-InP single quantum wells grown by chemical beam epitaxy  
 M. Cardona and N.E. Christensen  
 Phys. Rev. B **37**, 1011 (1988).
485. Resonant Raman Scattering by Phonons in a Strong Magnetic Field: GaAs  
 G. Ambræzevičius, M. Cardona, and R. Merlin  
 Phys. Rev. Lett. **59**, 700 (1987).
486. Raman Scattering in the High T<sub>c</sub> Superconductor MBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub>  
 Liu Ran, R. Merlin, M. Cardona, Hj. Mattausch, W. Bauhofer, F. García-Alvarado, E. Morán,  
 M. Vallet, J.M. González-Calbet, and M.A. Alario  
 Solid State Commun. **63**, 839 (1987).
487. Piezo-Raman Studies of Phonons in AlSb  
 E. Anastassakis and M. Cardona  
 Solid State Commun. **63**, 893 (1987).
488. Raman spectroscopy applied to the characterization of semiconductors and semiconductor microstructures  
 M. Cardona  
 Proc. of SPIE, Vol. 822, Int. Conf. on Raman and Luminescence Spectroscopy in Technology, San Diego, 1987 (SPIE, Bellingham, 1987) p. 2.
489. Resonant Raman Scattering in GaP: Excitonic and Interference Effects near the E<sub>0</sub> and E<sub>0</sub>+Δ<sub>0</sub> Gaps  
 W. Kauschke, V. Vorlíček, and M. Cardona  
 Phys. Rev. B **36**, 9129 (1987).
490. Self-energy terms in the temperature dependent shifts and broadenings of electronic states  
 S. Gopalan and M. Cardona  
 EPS Proceedings 1987.

491. Temperature dependence of the Raman and infrared phonons in  $\text{MBa}_2\text{Cu}_3\text{O}_{1-\delta}$ -type superconductors  
 A. Wittlin, R. Liu, M. Cardona, L. Genzel, W. König, W. Bauhofer, Hj. Mattausch, A. Simon, F. García-Alvarado  
*Solid State Commun.* **64**, 477 (1987).
492. Two-Phonon Frequency Difference Absorption in Si and Ge  
 K. Winer and M. Cardona  
*Solid State Commun.* **64**, 1461 (1987).
493. Infrared and Raman Spectra of the  $\text{MBa}_2\text{Cu}_3\text{O}_7$ -Type High- $T_c$  Superconductors  
 M. Cardona, L. Genzel, R. Liu, Hj. Mattausch, F. García-Alvarado, and E. García-González  
*Solid State Commun.* **64**, 727 (1987).
494. Raman Scattering from GaSb/AlSb Superlattices: Acoustic, Optical, and Interface Vibrational Modes  
 P.V. Santos, A.K. Sood, M. Cardona, K. Ploog, Y. Ohmori, and H. Okamoto  
*Phys. Rev. B* **37**, 6381 (1988).
495. Triply Resonant Second-Order Raman Scattering in GaAs  
 A. Alexandrou and M. Cardona  
*Solid State Commun.* **64**, 1029 (1987).
496. Superconducting Energy Gap in  $\text{MBa}_2\text{Cu}_3$ -Type Materials  
 A. Wittlin, L. Genzel, M. Cardona, M. Bauer, W. König, E. García, M. Barahona, and M.V. Cabañas  
*Phys. Rev. B* **37**, 652 (1988).
497. Annealing Effects in Ion Bombarded GaAs: Raman Measurements  
 G. Burns, F.H. Dacol, J.E.E. Baglin, C.R. Wie, E. Burstein, and M. Cardona  
*Mat. Res. Soc. Proc.* **82**, 121 (1987).
498. Lattice Dynamics of the High- $T_c$  Superconductor  $\text{L}_{2-x}\text{M}_x\text{CuO}_4$   
 J. Prade, A.D. Kulkarni, F.W. de Wette, W. Kress, M. Cardona, R. Reiger, and U. Schröder  
*Solid State Commun.* **64**, 1267 (1987).
499. Systematic Raman and Infrared Studies of the Superconductor  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  as a Function of Oxygen Concentration ( $0 \leq x \leq 1$ )  
 C. Thomsen, R. Liu, M. Bauer, A. Wittlin, L. Genzel, M. Cardona, E. Schönherr, W. Bauhofer, and W. König  
*Solid State Commun.* **65**, 55 (1988).
500. Suppression of Raman Scattering by Interface Phonons in Quantum Wells under High Photoexcitation  
 G. Ambrzevičius, M. Cardona, R. Merlin, and K. Ploog  
*Solid State Commun.* **65**, 1035 (1988).
501. Infrared and Raman Spectra of the New Superconducting Cuprate Perovskites  $\text{MBa}_2\text{Cu}_3\text{O}_7$ ,  $\text{M} = \text{Nd}, \text{Dy}, \text{Er}, \text{Tm}$   
 M. Cardona, R. Liu, C. Thomsen, M. Bauer, L. Genzel, W. König, A. Wittlin, U. Amador, M. Barahona, F. Fernández, C. Otero, and R. Sáez  
*Solid State Commun.* **65**, 71 (1988).
502. Presence of  $\text{Cu}_2\text{O}$  in  $\text{MBa}_2\text{Cu}_3\text{O}_6$  ( $\text{M} = \text{Sm}, \text{Ho}$ ), Semiconducting Modification of High Temperature Superconductors  
 R. Liu, C. Thomsen, M. Cardona, and Hj. Mattausch  
*Solid State Commun.* **65**, 67 (1988).

503. High  $T_c$  Superconductors  $\text{MBa}_2\text{Cu}_3\text{O}_{7-x}$  with M = Mixed Rare Earths and Y: Low Frequency Phonon Peak Engineering  
 C. Thomsen, R. Liu, A. Wittlin, L. Genzel, M. Cardona, W. König, M.V. Cabañas, and E. García  
*Solid State Commun.* **65**, 219 (1988).
504. Relativistic Band Structure and Spin-Orbit Splitting of Zincblende-Type Semiconductors  
 M. Cardona, N.E. Christensen, and G. Fasol  
*Phys. Rev. B* **38**, 1806 (1988).
505. Resonance Raman Scattering in pure and ultraheavily doped p-type germanium  
 M.I. Alonso and M. Cardona  
*Phys. Rev. B* **37**, 10107 (1988-I).
506. Raman and Infrared Studies of the Oxygen Deficient Semiconducting Phase of the Superconducting Cuprate Perovskites  
 C. Thomsen, M. Cardona, W. Kress, R. Liu, L. Genzel, M. Bauer, E. Schönherr, and U. Schröder  
*Solid State Commun.* **65**, 1139 (1988).
507. Frequencies, eigenvectors, and single crystal selection rules of  $\vec{k} = 0$  phonons in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ : theory and experiment  
 R. Liu, C. Thomsen, W. Kress, M. Cardona, B. Gegenheimer, F.W. de Wette, J. Prade, A.D. Kulkarni, and U. Schröder  
*Phys. Rev. B* **37**, 7971 (1988).
508. Band Offsets in Tetragonal Semiconductors  
 M. Cardona and N.E. Christensen  
*Journal of Vacuum Science and Technology B* **6**, 1285 (1988).
509. Optical Phonons in  $\text{Y}_2\text{BaCuO}_5$   
 Z.V. Popović, C. Thomsen, M. Cardona, R. Liu, G. Stanisić, and W. König  
*Solid State Commun.* **66**, 43 (1988).
510. Doubly and Triply Resonant Raman Scattering by LO Phonons in GaAs/AlAs Superlattices  
 A. Alexandrou, M. Cardona, and K. Ploog  
*Phys. Rev. B* **38**, 2196 (1988).
511. Raman Scattering in Single Crystal  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 C. Thomsen, M. Cardona, B. Gegenheimer, and R. Liu  
*Proc. of the Int. Conf. on High-Temperature Superconductors and Materials and Mechanisms of Superconductivity*, Interlaken, Switzerland, ed. by J. Müller and J.L. Olsen; *Physica C* **153-155**, 262 (1988).
512. Raman Scattering in  $\text{Yb}_2\text{Cu}_3\text{O}_{7-\delta}$  Untwinned Single Crystals  
 C. Thomsen, M. Cardona, R. Liu, B. Gegenheimer, and A. Simon  
*Proc. of the Int. Conf. on High-Temperature Superconductors and Materials and Mechanisms of Superconductivity*, Interlaken, Switzerland, ed. by J. Müller and J.L. Olsen; *Physica C* **153-155**, 1756 (1988).
513. Untwinned Single Crystals of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ : An Optical Investigation of the a-b Anisotropy  
 C. Thomsen, M. Cardona, B. Gegenheimer, R. Liu, and A. Simon  
*Phys. Rev. B* **37**, 9860 (1988).

514. Effect of Pressure on Raman Modes in  $\text{MBa}_2\text{Cu}_3\text{O}_7$ -Type Materials  
 K. Syassen, M. Hanfland, K. Strössner, M. Holtz, W. Kress, M. Cardona, U. Schröder, J. Prade, A.D. Kulkarni, and F.W. de Wette  
 Proc. of the Int. Conf. on High-Temperature Superconductors and Materials and Mechanisms of Superconductivity, Interlaken, Switzerland, ed. by J. Müller and J.L. Olsen; *Physica C* **153-155**, 264 (1988).
515. Hybridization of Valence States and Effective Masses of Electrons and Holes in Short Period  $(\text{GaAs})_m(\text{AlAs})_m$  Superlattices  
 S. Gopalan, M. Cardona, and N.E. Christensen  
*Solid State Commun.* **66**, 471 (1988).
516. Optical Response of  $\text{MBa}_2\text{Cu}_3\text{O}_{7-\delta}$ -Type Materials  
 M. Garriga, U. Venkateswaran, K. Syassen, J. Humlíček, M. Cardona, Hj. Mattausch, and E. Schönher  
 Proc. of the Int. Conf. on High-Temperature Superconductors and Materials and Mechanisms of Superconductivity, Interlaken, Switzerland, ed. by J. Müller and J.L. Olsen; *Physica C* **153-155**, 643 (1988).
517. Triply Resonant Second-Order Raman Scattering in Superlattices and Bulk Semiconductors  
 A. Alexandrou, Y. Pusep, and M. Cardona  
 Proc. of the XIth Int. Conf. on Raman Spectroscopy, Sept. 5-9, 1988, London, ed. by R.J.H. Clark and D.A. Long (John Wiley & Sons, Chichester), p. 391.
518. Raman Scattering in High  $T_c$  Superconductors:  $\text{YBa}_2\text{Cu}_3\text{O}_7$  and  $\text{Bi}_2\text{SrCaCuO}_8$   
 M. Cardona, R. Liu, C. Thomsen, M. Hartweg, L. Popp, and H.G. von Schnering  
 Proc. of the XIth Int. Conf. on Raman Spectroscopy, Sept. 5-9, 1988, London, ed. by R.J.H. Clark and D.A. Long (John Wiley & Sons, Chichester), p. 403.
- 518a. Deformation Potential Raman Scattering near the  $E_0$ -Gap in AlGaAs-Alloys  
 C. Trallero-Giner, V.I. Gavrilenko, and M. Cardona  
 Proc. of XI. Int. Conf. on Raman Spectroscopy, Sept. 5-9, 1988, London. Ed. by R.J.H. Clark and D.A. Long (John Wiley & Sons, Chichester), p. 329.
519. Resonant Raman Scattering in Semiconductors  
 W. Kauschke and M. Cardona  
*Physica Scripta T25*, 201 (1989).
520. Ellipsometric Spectra of  $\text{YBa}_2\text{Cu}_3\text{O}_7$  in the 1.7 - 5.3 eV range  
 J. Humlíček, M. Garriga, M. Cardona, B. Gegenheimer, and E. Schönher  
*Solid State Commun.* **66**, 1071 (1988).
521. Phonon characterization of  $\text{Bi}_2(\text{Sr}_{1-x}\text{Ca}_x)_2\text{CuO}_{6+\delta}$  by Infrared and Raman Spectroscopy  
 Z.V. Popović, C. Thomsen, M. Cardona, L. Liu, G. Stanisić, R. Kremer, and W. König  
*Solid State Commun.* **66**, 965 (1988).
522. Raman and Infrared Phonon Piezospectroscopy in InP  
 E. Anastassakis, Y.S. Raptis, M. Hünermann, W. Richter, and M. Cardona  
*Phys. Rev. B* **38**, 7702 (1988).
523. Raman Scattering on Superconducting Crystals of  $\text{Bi}_2(\text{Sr}_{1-x}\text{Ca}_x)_{n+2}\text{Cu}_{n+1}\text{O}_{(6+2n)+\delta}$  ( $n = 0, 1$ )  
 M. Cardona, C. Thomsen, R. Liu, H.G. von Schnering, M. Hartweg, Y.F. Yan, and Z.X. Zhao  
*Solid State Commun.* **66**, 1225 (1988).

524. Effects of Oxygen Deficiency on the Optical Spectra of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$   
 M. Garriga, J. Humlíček, M. Cardona, E. Schönherr  
*Solid State Commun.* **66**, 1231 (1988).
525. Infrared and Raman Spectra of  $\text{M}_2\text{Cu}_2\text{O}_5$  ( $\text{M} = \text{Y}, \text{Ho}$ )  
 Z.V. Popović, C. Thomsen, M. Cardona, R. Liu, G. Stanisić, and W. König  
*Z. Phys. B* **72**, 13 (1988).
526. Exciton effects in stress-induced doubly resonant Raman scattering  
 C. Trallero-Giner, A. Alexandrou, and M. Cardona  
*Phys. Rev. B* **38**, 10744 (1988).
527.  $\text{CuO}_2$ -plane vibrational modes in single crystals of  $\text{PrBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 C. Thomsen, R. Liu, M. Cardona, U. Amador, and E. Morán  
*Solid State Commun.* **67**, 271 (1988).
528. Electronic structure and superconductivity of Co-substituted  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 F.U. Hillebrecht, L. Ley, R.L. Johnson, R. Liu, C. Thomsen, M. Cardona, Hj. Mattausch, W. Bauhofer, and A. Simon  
*Solid State Commun.* **67**, 379 (1988).
529. Deformation potential LO-phonon Raman scattering near the  $E_0$ -gap in  $\text{Al}_x\text{Ga}_{1-x}\text{As}$ -alloy.  
 Excitonic effects  
 V.I. Gavrilenko, C. Trallero-Giner, M. Cardona, and E. Bauser  
*Solid State Commun.* **67**, 459 (1988).
530. Effect of Isotropic Substitution of Oxygen on  $T_c$  and the Phonon Frequencies of High  $T_c$  Superconductors  
 M. Cardona, R. Liu, C. Thomsen, W. Kress, E. Schönherr, M. Bauer, L. Genzel, and W. König  
*Solid State Commun.* **67**, 789 (1988).
531. Temperature Dependence of Optical Excitations in  $\text{MBa}_2\text{Cu}_3\text{O}_6$  ( $\text{M} = \text{Y}, \text{Sm}$ )  
 J. Humlíček, M. Garriga, and M. Cardona  
*Solid State Commun.* **67**, 589 (1988).
532. Raman Study of the Phonon Anomaly in Single-Crystal  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  in the Presence of a Magnetic Field  
 T. Ruf, C. Thomsen, R. Liu and M. Cardona  
*Phys. Rev. B* **38**, 11985 (1988).
533. Doubly and Triply Resonant Raman Scattering by LO Phonons in GaAs/AlAs Superlattices  
 A. Alexandrou, M. Cardona, and K. Ploog  
 Proceedings of the 19th Int. Conf. on the Physics of Semiconductors, Warsaw, Poland, August 15. - 19., 1988, ed. by W. Zawadzki (Inst. of Physics, Polish Academy of Sciences, 1988), p. 811.
534. Resonant Raman Scattering by LO Phonons in a Magnetic Field: InP (100)  
 T. Ruf, A. Cantarero, M. Cardona, J. Schmitz, U. Rössler  
 Proceedings of the 19th Int. Conf. on the Physics of Semiconductors, Warsaw, Poland, August 15. - 19., 1988, ed. by W. Zawadzki (Inst. of Physics, Polish Academy of Sciences, 1988), p. 1473.
535. Exciton Effects in Stress-Induced Doubly Resonant Raman Scattering  
 C. Trallero-Giner, A. Alexandrou, and M. Cardona  
 Proceedings of the 19th Int. Conf. on the Physics of Semiconductors, Warsaw, Poland, August 15. - 19., 1988, ed. by W. Zawadzki (Inst. of Physics, Polish Academy of Sciences, 1988), p. 1327.

536. Character of Electron and Hole States in Short-Period GaAs/AlAs Superlattices  
 S. Gopalan, N.E. Christensen, and M. Cardona  
 Proceedings of the 19th Int. Conf. on the Physics of Semiconductors, Warsaw, Poland, August 15. - 19., 1988, ed. by W. Zawadzki (Inst. of Physics, Polish Academy of Sciences, 1988), p. 369.
537. Stress Induced Triply Resonant Second-Order Raman Scattering at the  $E_0$  and  $E_0 + \Delta_0$  Gap of GaP  
 Y. Pusep, A. Alexandrou, and M. Cardona  
 Proceedings of the 19th Int. Conf. on the Physics of Semiconductors, Warsaw, Poland, August 15. - 19., 1988, ed. by W. Zawadzki (Inst. of Physics, Polish Academy of Sciences, 1988), p. 889.
538. Influence of Deformation Potential Electron-Phonon Interaction on the Optical Transitions and Intervalley Scattering in III-V-Semiconductors  
 S. Zollner, S. Gopalan, M. Garriga, J. Humlíček, and M. Cardona  
 Proceedings of the 19th Int. Conf. on the Physics of Semiconductors, Warsaw, Poland, August 15. - 19., 1988, ed. by W. Zawadzki (Inst. of Physics, Polish Academy of Sciences, 1988), p. 1513.
539.  $X_1$  and  $X_3$  States of Electrons and Phonons in Zincblende-Type Semiconductors  
 Renata M. Wentzcovitch, Manuel Cardona, Marvin L. Cohen, and Niels E. Christensen  
*Solid State Commun.* **67**, 927 (1988).
540. The Dielectric Function of Zincblende-Type Semiconductors Determined Ellipsometrically Between 3 and 30 eV  
 J. Barth, R.L. Johnson, M. Cardona, D. Fuchs, and A.M. Bradshaw  
 Proceedings of the 19th Int. Conf. on the Physics of Semiconductors, Warsaw, Poland, August 15. - 19., 1988, ed. by W. Zawadzki (Inst. of Physics, Polish Academy of Sciences, 1988), p. 885.
541. Band Edge States in Short-Period  $(\text{GaAs})_m(\text{AlAs})_n$  Superlattices  
 S. Gopalan, N.E. Christensen, and M. Cardona  
*Phys. Rev. B* **39**, 5165 (1989).
542. Raman and Far Infrared Studies of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Prepared Exclusively with  $^{18}\text{O}$   
 C. Thomsen, Hj. Mattausch, M. Bauer, W. Bauhofer, R. Liu, L. Genzel, and M. Cardona  
*Solid State Commun.* **67**, 1069 (1988).
543. Interband Critical Point Parameters Determined by Ellipsometry in  $\text{Zn}_x\text{Hg}_{1-x}\text{Se}$   
 K. Kumazaki, L. Viña, C. Umbach, and M. Cardona  
*Solid State Commun.* **68**, 591 (1988).
544. Folded, Confined, Interface, Surface, and Slab Vibrational Modes in Semiconductor Superlattices  
 M. Cardona  
*Superlattices and Microstructures* **5**, 27 (1989).
545. Pressure Dependence of the Direct Optical Gap and Refractive Index of Ge and GaAs  
 A.R. Goñi, K. Syassen, K. Strössner, and M. Cardona  
*Semicond. Sci. Technol.* **4**, 246 (1989).
546. Triply Resonant Second-Order Raman Scattering at the  $E_0$  and  $E_0 + \Delta_0$  Gap of GaP under Uniaxial Stress  
 A. Alexandrou, Y. Pusep, and M. Cardona  
*Phys. Rev. B* **39**, 8308 (1989).

547. Excitons in One Phonon Resonant Raman Scattering: GaP  
 A. Cantarero, C. Trallero-Giner, and M. Cardona  
 Solid State Commun. **69**, 1183 (1989).
548. Effect of Pressure on the Optical Absorption in GaP and  $\text{Ga}_x\text{In}_{1-x}\text{P}$  ( $x = 0.36$  and  $0.5$ )  
 A.R. Goñi, K. Syassen, K. Strössner, and M. Cardona  
 Phys. Rev. B **39**, 3178 (1989).
549. Spectroscopic Ellipsometry with Synchrotron Radiation  
 R.L. Johnson, J. Barth, M. Cardona, D. Fuchs, and A.M. Bradshaw, Proc. 3rd Int. Conf. on  
 Synchrotron Radiation Instrumentation, Tsukuba, Japan, Sept. 1988  
 Rev. Sci. Instr. **60**, 2209 (1989).
550. Ellipsometric Measurements on High  $T_c$  Compounds  
 M. Garriga, J. Humlíček, J. Barth, R.L. Johnson, and M. Cardona  
 J. Opt. Soc. Am. B **6**, 470 (1989).
551. Optical Spectra of  $\text{Si}_x\text{Ge}_{1-x}$  Alloys  
 J. Humlíček, M. Garriga, M.I. Alonso, and M. Cardona  
 J. Appl. Phys. **65**, 2827 (1989).
552. Intervalley deformation potentials and scattering rates in zincblende semiconductors  
 Stefan Zollner, Sudha Gopalan, and Manuel Cardona  
 Appl. Phys. Lett. **54**, 614 (1989).
553. Raman Scattering as an Analytic Tool for High- $T_c$  Superconductors  
 C. Thomsen, M. Cardona, and R. Liu  
 Journal of the Less Common Metals **150**, 33 (1989).
554. Energy Band Offsets in Semiconductor Interfaces  
 M. Cardona  
 Proc. of the Fifth Latin American Symposium on Surface Physics, *Thin Films and Small Particles*, CIF Series **11**, Bogota, Columbia, July 11-15, 1988, ed. by M. Cardona and J. Giraldo (World Scientific Publ., Singapore, 1989) p. 20.
555. Raman Scattering in High- $T_c$  Superconductors  
 C. Thomsen and M. Cardona  
 in *Physical Properties of High Temperature Superconductors I*, ed. by D.M. Ginsberg (World Scientific Publ., Singapore, 1989), p. 409.
556. Excitons in one-phonon resonant Raman scattering: Deformation potential interaction  
 A. Cantarero, C. Trallero-Giner, and M. Cardona  
 Phys. Rev. B **39**, 8388 (1989).
557. Confined phonons in  $(\text{GaAs})_{n_1}(\text{AlAs})_{n_2}$  superlattices grown along the [012] direction  
 Z.V. Popović, M. Cardona, L. Tapfer, K. Ploog, E. Richter, and D. Strauch  
 Appl. Phys. Lett. **54**, 846 (1989).
558. Space Groups and Lattice Dynamics of Ge/Si Superlattices Grown in the [001] Direction  
 M.I. Alonso, M. Cardona, and G. Kanellis  
 Solid State Commun. **69**, 479 (1989)  
 Corrigendum  
 Solid State Commun. **70**, (1989).

559. Vibrational Modes in the CuO<sub>2</sub> Planes of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub>  
 M. Cardona and C. Thomsen  
 Proceedings of International Symposium on the Electronic Structure of High T<sub>c</sub> Superconductors, Rome, October 5-7, 1988, ed. by A. Bianconi and A. Marcelli, (Pergamon Press, Oxford, New York, 1988), p. 79.
560. Temperature Dependence of the Band Structure of Semiconductors: Electron-Phonon Interaction  
 M. Cardona and S. Gopalan  
 in *Progress in Electron Properties of Solids*  
 Festschrift in honor of Franco Bassani, ed. by E. Doni, R. Girlanda, G. Pastori Parravicini, A. Quattropani (Kluwer Academic Publ., Amsterdam, 1989), p. 51.
561. The dielectric function of AlSb from 1.4 to 5.8 eV determined by spectroscopic ellipsometry  
 S. Zollner, C. Lin, E. Schönherr, A. Böhringer, and M. Cardona  
*J. Appl. Phys.* **66**, 383 (1989).
562. Pb<sub>2</sub>Sr<sub>2</sub>R<sub>1-x</sub>Ca<sub>x</sub>Cu<sub>3</sub>O<sub>8+δ</sub>: Raman and Far Infrared Investigation  
 C. Thomsen, M. Cardona, R. Liu, Hj. Mattausch, W. König, F. García-Alvarado, B. Suárez, E. Morán, and M. Alario-Franco  
*Solid State Commun.* **69**, 857 (1989).
563. Theoretical model of stress-induced triply resonant Raman scattering  
 A. Alexandrou, C. Trallero-Giner, A. Cantarero, and M. Cardona  
*Phys. Rev. B* **40**, 1603 (1989).
564. Doubly and triply resonant Raman scattering via electron–two-phonon and impurity-induced Fröhlich interaction in uniaxial stressed GaAs  
 A. Alexandrou, C. Trallero-Giner, G. Kanellis, and M. Cardona  
*Phys. Rev. B* **40**, 1013 (1989).
565. Phonon Anomalies and Range of Superconducting Energy Gaps from Infrared Studies of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub>  
 L. Genzel, A. Wittlin, M. Bauer, M. Cardona, E. Schönherr, and A. Simon  
*Phys. Rev. B* **40**, 2170 (1989).
566. Folded phonons in (GaAs)<sub>n<sub>1</sub></sub>(AlAs)<sub>n<sub>2</sub></sub> superlattices grown along the [012] direction  
 Z.V. Popović, H.J. Trodahl, M. Cardona, E. Richter, D. Strauch, and K. Ploog  
*Phys. Rev. B* **40**, 1202 (1989).
567. Raman scattering of (GaAs)<sub>n<sub>1</sub></sub>(AlAs)<sub>n<sub>2</sub></sub> superlattices grown along the [012] direction  
 Z.V. Popović, M. Cardona, E. Richter, D. Strauch, L. Tapfer, and K. Ploog  
*Phys. Rev. B* **40**, 1207 (1989).
568. Resonant Raman Scattering by LO-Phonon in Al<sub>x</sub>Ga<sub>1-x</sub>As (0.2 < x < 0.7): Broadening and Alloying Effects  
 C. Trallero-Giner, V.I. Gavrilenko, and M. Cardona  
*Phys. Rev. B* **40**, 1238 (1989).
569. Resonant Raman Scattering and Piezomodulated Reflectivity of InP in High Magnetic Fields  
 T. Ruf, R.T. Phillips, A. Cantarero, G. Ambrashevicius, M. Cardona, J. Schmitz, and U. Rössler  
*Phys. Rev. B* **39**, 13 378 (1989).
570. Direct Band Gap Absorption in Germanium under Pressure  
 A.R. Goñi, K. Syassen, and M. Cardona  
*Phys. Rev. B* **39**, 12921 (1989).

571. Raman Study of High Pressure Phase Transitions in PbTe  
 S. Ves, Yu.A. Pusep, K. Syassen, and M. Cardona  
 Solid State Commun. **70**, 257 (1989).
572. Effect of biaxial strain on exciton transitions of  $\text{Al}_x\text{Ga}_{1-x}\text{As}$  epitaxial layers on (001) GaAs substrates  
 S. Logothetidis, M. Cardona, L. Tapfer, and E. Bauser  
 J. Appl. Phys. **66**, 2108 (1989).
573. Resonant Raman Scattering in Short-Period  $\text{Si}_n\text{Ge}_m$  Superlattices  
 F. Cerdeira, M.I. Alonso, D. Niles, M. Garriga, M. Cardona, E. Kasper, and H. Kibbel  
 Phys. Rev. B **40**, 1361 (1989).
574. One-phonon resonant Raman scattering: Fröhlich exciton-phonon interaction  
 C. Trallero-Giner, A. Cantarero, and M. Cardona  
 Phys. Rev. B **40**, 4030 (1989).
575. Raman Scattering Spectra of a Superconducting  $\text{Pb}_2\text{Sr}_2\text{Y}_{0.75}\text{Ca}_{0.25}\text{Cu}_3\text{O}_{8+\delta}$  Single Crystal  
 Ran Liu, M. Cardona, B. Gegenheimer, E.T. Heyen, and C. Thomsen  
 Phys. Rev. B **40**, 2654 (1989).
576. Raman spectra of  $\text{Si}_n\text{Ge}_m$  superlattices: theory and experiment  
 M.I. Alonso, F. Cerdeira, D. Niles, M. Cardona, E. Kasper, and H. Kibbel  
 J. Appl. Phys. **66**, 5645 (1989).
577. Phonon Properties of GaAs/AlAs Superlattices Grown Along [110] Direction  
 Z.V. Popović, M. Cardona, E. Richter, D. Strauch, L. Tapfer, and K. Ploog  
 Phys. Rev. B **40**, 3040 (1989).
578. Exciton in one-phonon resonant Raman scattering: Fröhlich and interference effects  
 A. Cantarero, C. Trallero-Giner, and M. Cardona  
 Phys. Rev. B **40**, 12290 (1989).
579. Anisotropy of the dielectric function in  $\text{YBa}_2\text{Cu}_3\text{O}_6$   
 J. Kircher, M. Alouani, M. Garriga, P. Murugaraj, J. Maier, C. Thomsen, M. Cardona, O.K. Andersen, and O. Jepsen  
 Phys. Rev. B **40**, 7368 (1989).
580. In search of hydrogen local vibrational modes in CuCl, CuBr, CuI, ZnS, and AlSb  
 J. Tatarkiewicz, M. Cardona, A. Breitschwerdt, C.-T. Lin, R. Gröttschel, and W. Witthuhn  
 phys. stat. sol. (b) **155**, 77 (1989).
581. Are Transverse Phonons Important for  $\Gamma - X$  Intervalley Scattering?  
 S. Zollner, J. Kircher, M. Cardona, and S. Gopalan  
 Solid-State Electronics **32**, 1585 (1989).
582.  $E_2$  Interband Transitions in  $\text{Al}_x\text{Ga}_{1-x}\text{As}$  Alloys  
 S. Logothetidis, M. Alouani, M. Garriga, and M. Cardona  
 Phys. Rev. B **41**, 2959 (1990).
583. Magnetic-Field-Induced Doubly Resonant LO-Phonon Raman Scattering in GaAs  
 T. Ruf, C. Trallero-Giner, R.T. Phillips, and M. Cardona  
 Solid State Commun. **72**, 67 (1989).
584. Resonant Magneto-Raman Scattering in GaAs  
 T. Ruf, R.T. Phillips, C. Trallero-Giner, and M. Cardona  
 Phys. Rev. B **41**, 3039 (1990).

585. Theory of One-Phonon Resonant Raman Scattering in a Magnetic Field  
 C. Trallero-Giner, T. Ruf, and M. Cardona  
*Phys. Rev. B* **41**, 3028 (1990).
586. Resonant Raman Scattering in the  $\text{Pb}_2\text{Sr}_2(\text{Y,Ca})\text{Cu}_3\text{O}_{8+\delta}$  Superconductor  
 E.T. Heyen, R. Liu, M. Garriga, B. Gegenheimer, C. Thomsen, and M. Cardona  
*Phys. Rev. B* **41**, 830 (1990).
587. Phonons in Superlattices  
 M. Cardona  
 in *Spectroscopy of Semiconductor Microstructures*, ed. by G. Fasol, A. Fasolino, and P. Lugi, Proceedings of the NATO ARW in Venice, 9-13 May (Plenum Press, 1989), p. 143.
588. Introduction to High  $T_c$  Superconductors: The Role of Phonons  
 M. Cardona  
 Ultrasonics International 89 Conference Proceedings 89, 2 (1989), (Butterworth and Co., 1989) p. 2.
589. Magnetic-Field Induced Multiphonon Resonant Raman Scattering in GaAs  
 T. Ruf and M. Cardona  
*Phys. Rev. Lett.* **63**, 2288 (1989).
- 589a M. Cardona and G. Güntherodt  
 Introduction in: *Light Scattering in Solids V: Superlattices and Other Microstructures, Topics in Applied Physics*  
 Vol. 66, pg. 1 (1989).
- 589b B. Jusserand and M. Cardona  
 in: *Light Scattering in Solids V: Superlattices and Other Microstructures, Topics in Applied Physics*  
 Vol. 66, pg. 49-55 (1989).
590. A Light Scattering Study of Electron-Phonon Interaction in the Oxide Superconductors  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  and  $\text{Pb}_2\text{Sr}_2\text{Y}_{1-x}\text{Ca}_x\text{Cu}_3\text{O}_{8+\delta}$   
 C. Thomsen, M. Cardona, R. Liu, T. Ruf, B. Gegenheimer, and E.T. Heyen  
 Proceed. Intl. Conf. on High-Temperature Superconductors and Materials and Mechanisms of Superconductivity, Stanford, 1989, ed. by R.N. Shelton, W.A. Harrison, and N.E. Phillips, *Physica C* **162-164**, 1079 (1989).
591. High-Pressure Low-Temperature Study of the Exciton Absorption in GaAs  
 A.R. Goñi, A. Cantarero, K. Syassen, and M. Cardona  
*High Pressure Research* **3**, 81 (1990).
592. On the lifetime broadening of the  $E_0^{v1}$  and  $E_0^{v2}$  excitons in the  $\text{GaAs}/\text{Al}_x\text{Ga}_{1-x}\text{Al}$  alloy system  
 S. Logothetidis, M. Cardona, and C. Trallero-Giner  
*J. Appl. Phys.* **67**, 4133 (1990).
593. Vibrational Properties of  $\text{Bi}_2\text{CuO}_4$   
 Z.V. Popović, G. Kliche, M. Cardona, and R. Liu  
*Phys. Rev. B* **41**, 3824 (1990).
594. Microscopic Theory of Intervalley Scattering in GaAs:  $\vec{k}$ -Dependence of Intervalley Deformation Potentials  
 Stefan Zollner, Sudha Gopalan, and Manuel Cardona  
 Proceed. Third Intl. Conf. on Phonon Physics (PHONONS-89) and the Sixth Intl. Conf. on Phonon Scattering in Condensed Matter, Vol. 2, Eds. S. Hunklinger, W. Ludwig and G. Weiss (World Scientific, Singapore, 1990), p. 787.

595. Resonant Raman Scattering in High  $T_c$  Superconductors  
 E.T. Heyen, R. Liu, B. Gegenheimer, C. Thomsen, and M. Cardona  
 PHONONS 89 Conference, eds. S. Hunklinger, W. Ludwig, G. Weiss (World Scientific, Singapore, 1990), p. 346.
596. Raman Scattering from Plasmons in Doped GaAs-AlAs Multiple Quantum Wells  
 A.K. Sood, M. Cardona, A. Fischer, and K. Ploog  
 in *Recent Trends in Raman Spectroscopy*, November 2-6, 1988, Calcutta, India, ed. by S.B. Banerjee and S.S. Jha (World Scientific Publ., Singapore, 1989), p. 289.
597. Piezo-Raman Measurements and Anharmonic Parameters in Silicon and Diamond  
 E. Anastassakis, A. Cantarero, and M. Cardona  
*Phys. Rev. B* **41**, 7529 (1990).
598. Synchrotron Radiation  
 R.L. Johnson and M. Cardona  
 Second revised edition of the Encyclopedia of Physics (VCH Publishers, Inc., New York, 2005), Eds. Rita G. Lerner and Georg Trigg, p. 1241.
599. Phonons in GaAs/AlAs superlattices grown along the [111] direction  
 Z.V. Popović, M. Cardona, E. Richter, D. Strauch, L. Tapfer, and K. Ploog  
*Phys. Rev. B* **41**, 5904 (1990).
600. Relativistic band structure of Si, Ge, and GeSi: Inversion asymmetry effects  
 U. Schmid, N.E. Christensen, and M. Cardona  
*Phys. Rev. B* **41**, 5919 (1990).
601. Frequency Gaps for Folded Acoustic Phonons in Superlattices  
 F. Calle, M. Cardona, E. Richter and D. Strauch  
*Solid State Commun.* **72**, 1153 (1989).
602. Interband critical point parameters determined by ellipsometry in  $Cd_xHg_{1-x}Se$   
 K. Kumazaki, L. Viña, C. Umbach, and M. Cardona, *phys. stat. sol. (b)* **156**, 371 (1990).
603. Analysis of the temperature dependence of direct transitions in angle resolved photoemission and its application to InSb  
 J. Fraxedas, J. Trodahl, S. Gopalan, L. Ley and M. Cardona  
*Phys. Rev. B* **41**, 10068 (1990).
604. Optical response of  $Bi_2Sr_2CaCu_2O_8$  superconductors  
 J. Humlíček, E. Schmidt, L. Bočánek, M. Garriga, and M. Cardona  
*Solid State Commun.* **73**, 127 (1990).
605. Far-Infrared Study of Optical Phonons in an  $YBa_2Cu_3O_6$  Crystal  
 M. Bauer, I.B. Ferreira, L. Genzel, M. Cardona, P. Murugaraj, and J. Maier  
*Solid State Commun.* **72**, p. 551 (1989).
606. Comment on: ‘Ab initio’ pseudopotential calculations of optical-phonon deformation potentials in zinc-blende semiconductors  
 M. Cardona and N.E. Christensen  
*Phys. Rev. B* **41**, 5407 (1990).
607. Design and Performance of a VUV-Ellipsometer  
 R.L. Johnson, J. Barth, M. Cardona, D. Fuchs, and A.M. Bradshaw  
*Nuclear Instruments and Methods in Physics Research A* **290**, 606 (1990).

608. Effect of pressure on the low-temperature exciton absorption in GaAs  
 A.R. Goñi, A. Cantarero, K. Syassen, and M. Cardona  
*Phys. Rev. B* **41**, 10111 (1990).
609. Microscopic theory of intervalley scattering in GaAs:  $\vec{k}$ -dependence of deformation potentials and scattering rates  
 S. Zollner, S. Gopalan, and M. Cardona  
*J. Appl. Phys.* **68**, 1682 (1990).
610. Nonparabolicity of the conduction band in GaAs  
 T. Ruf and M. Cardona  
*Phys. Rev. B* **41**, 10747 (1990).
611. Optical phonons in  $\text{YBa}_2\text{Cu}_4\text{O}_8$  and  $\text{Y}_2\text{Ba}_4\text{Cu}_7\text{O}_{15-\delta}$   
 E.T. Heyen, R. Liu, C. Thomsen, R. Kremer, M. Cardona, J. Karpinski, E. Kaldis, and S. Rusiecki  
*Phys. Rev. B* **41**, 11058 (1991).
612. High  $T_c$  Superconductors: An Introduction and Raman Spectroscopy  
 M. Cardona  
 Proceed. XII. Intern. Conf. on Raman Spectroscopy, August 1990, Columbia, South Carolina, eds. J.R. Durig and J.F. Sullivan, (John Wiley & Sons, Chichester, UK, 1990), p. 27.
613. Raman Spectroscopy of High  $T_c$  Superconductors  
 M. Cardona  
 in Superconductivity-ICSC (World Scientific, Singapore, 1990), p. 208.
614. Identification of the  $1250 \text{ cm}^{-1}$  Raman feature in  $\text{YBa}_2\text{Cu}_3\text{O}_6$   
 C. Thomsen, E. Schönherr, B. Friedl, and M. Cardona  
*Phys. Rev. B* **42**, 943 (1990).
615. Space Groups of Ge/Si Superlattices Grown along the [110], [111], [112], [120], and [114] Directions  
 P. Molinàs i Mata, M.I. Alonso, and M. Cardona  
*Solid State Commun.* **74**, 347 (1990).
616. Inter Landau level scattering in the valence band of zincblende semiconductors induced by the Fröhlich interaction  
 G.C. La Rocca, T. Ruf, and M. Cardona  
*Phys. Rev. B* **41**, 12672 (1990).
617. Effect of pressure on the refractive index of Ge and GaAs  
 A.R. Goñi, K. Syassen, and M. Cardona  
*Phys. Rev. B* **41**, 10104 (1990).
618. Intra- and Intervalley Deformation Potentials for Electrons in GaAs  
 M. Cardona and S. Zollner  
 in *Properties of GaAs* (INSPEC, London, N.Y., 1990), p. 126.
619. Lattice Vibrations in Semiconductor Superlattices  
 M. Cardona  
*Superlattices and Microstructures* **7**, 183 (1990).
620. Intervalley Scattering Times from the Rigid Pseudo-Ion Method  
 S. Zollner, S. Gopalan, and M. Cardona  
 in *Ultrafast Laser Probe Phenomena in Bulk and Microstructure Semiconductors III*, edited by R. R. Alfano, Proc. SPIE 1282, p. 78-85, (1990).

621. Acoustic, Optic and Interface Phonons: Low Symmetry Superlattices  
M. Cardona  
in *Light Scattering in Semiconductor Structures and Superlattices*, ed. by D.J. Lockwood and J.F. Young (Plenum Press, New York, 1991), p. 19.
622. Phonon Self-Energies and the Gap of High-Temperature Superconductors  
C. Thomsen, M. Cardona, B. Friedl, I.I. Mazin, C.O. Rodriguez, and O.K. Andersen  
Solid State Commun. **75**, 219 (1990).
623. Resonant Raman Scattering in  $\text{YBa}_2\text{Cu}_3\text{O}_7$ ,  $\text{YBa}_2\text{Cu}_3\text{O}_6$ , and  $\text{YBa}_2\text{Cu}_4\text{O}_8$   
E.T. Heyen, R. Liu, C. Thomsen, and M. Cardona  
Electronic Properties of High-Temperature Superconductors and Related Compounds, eds. H. Kuzmany, M. Mehring, and J. Fink, Solid State Sciences **99** (Springer, Heidelberg, 1990), p. 324.
624. Temperature-dependent lifetime of spin excitations in  $\text{REBa}_2\text{Cu}_3\text{O}_6$  (RE = Eu, Y)  
P. Knoll, C. Thomsen, M. Cardona, and P. Murugaraj  
Phys. Rev. B **42**, 4842 (1990).
625. Spectral Ellipsometry of Semiconductors and Semiconductor Structures  
L. Viña, M. Garriga, and M. Cardona  
SPIE Conference, Anaheim, 1990.
626. Ellipsometry of Graphite and the  $\text{C}_8$  Intercalation Compound between 5 and 30 eV  
D. Fuchs, R. Schlögl, A.M. Bradshaw, J. Barth, R.L. Johnson, and M. Cardona  
Synthetic Metals **34**, 417 (1989).
627. Dielectric function of  $\text{CaF}_2$  between 10 and 35 eV  
J. Barth, R.L. Johnson, M. Cardona, D. Fuchs, and A.M. Bradshaw  
Phys. Rev. B **41**, 3291 (1990).
628. Phonons in  $\text{Nd}_{2-x}\text{Ce}_x\text{CuO}_4$   
E.T. Heyen, G. Kliche, W. Kress, W. König, M. Cardona, E. Rampf, J. Prade, U. Schröder, A.D. Kulkarni, F.W. de Wette, S. Piñol, D.McK. Paul, E. Morán, and M.A. Alario-Franco  
Solid State Commun. **74**, 1299 (1990).
629. Theory of Raman Scattering on Normal Metals with Impurities  
A. Zawadowski and M. Cardona  
Phys. Rev. B **42**, 10732 (1990).
630. Calculated Deformation Potentials in Si, Ge, and GeSi  
U. Schmid, N.E. Christensen, and M. Cardona  
Solid State Commun. **75**, 39 (1990).
631. Raman Scattering by the Coupled Plasmon-LO-Phonon Modes Near the  $E_0 + \Delta_0$  Gap of n-GaAs: Resonance and Interference Effects  
V. Vorlíček, I. Gregora, W. Kauschke, J. Menéndez, and M. Cardona  
Phys. Rev. B **42**, 5802 (1990).
632. Determination of the superconducting gap in  $\text{RBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
B. Friedl, C. Thomsen, and M. Cardona  
Phys. Rev. Lett. **65**, 915 (1990).
633. Direct Transition Energies in Strained 10-Monolayer Ge/Si Superlattices  
Uwe Schmid, Niels E. Christensen, and M. Cardona  
Phys. Rev. Lett. **65**, 2610 (1990).

634. Cubic ZnS under Pressure: Optical Absorption Edge, Phase Transition, and Calculated Equation of State  
 S. Ves, U. Schwarz, N.E. Christensen, K. Syassen, and M. Cardona  
*Phys. Rev. B* **42**, 9113 (1990).
635. High  $T_c$  Superconductors: An Introduction and Raman Spectroscopy  
 M. Cardona  
 Proceedings of Symposium A on High  $T_c$  Superconductor Materials of the E-MRS Spring Meeting 1990, Strasbourg, France, May 29 – June 1, 1990, eds. H.-U. Habermeier and E. Kaldus, *J. of the Less-Common Metals.* **164 & 165**, 989 (1990).
636. Angular Dispersion and Polarization Mixing in GaAs/AlAs Superlattices grown along the [012] Direction  
 Z.V. Popović, M. Cardona, E. Richter, D. Strauch, L. Tapfer, and K. Ploog  
*Phys. Rev. B* **43**, 4925 (1991).
637. LMTO and EPM Calculations of Strained Valence Bands in GaAs and InAs  
 S. Zollner, U. Schmid, N.E. Christensen, C.H. Grein, M. Cardona, and L. Ley  
 Proc. of the 20th Int. Conf. on the Physics of Semiconductors, Tessaloniki, 1990, eds. E.M. Anastassakis and J.D. Joannopoulos, (World Scientific, Singapore, 1990) p. 1735.
638. Temperature Dependence of the Dielectric Function and the Interband Critical-Point Parameters of GaSb  
 S. Zollner, M. Garriga, J. Humlíček, S. Gopalan, and M. Cardona  
*Phys. Rev. B* **43**, 4349 (1991).
639. Structural and Vibrational Properties of  $(\text{InAs})_m(\text{GaAs})_n$  Strained Superlattices Grown by Molecular Beam Epitaxy  
 G. Scamarcio, O. Brandt, L. Tapfer, D.J. Mowbray, M. Cardona, and K. Ploog  
*J. of Appl. Phys.* **69**, 786 (1991).
640. Band Structure and Heterojunctions of II-VI Materials  
 N.E. Christensen, I. Gorczyca, O.B. Christensen, U. Schmid, and M. Cardona  
*J. of Crystal Growth* **101**, 318 (1990).
641. Resonant First- and Second-Order Raman Scattering in AlSb  
 V.I. Gavrilenko, D. Martínez, A. Cantarero, M. Cardona, and C. Trallero-Giner, *Phys. Rev. B* **42**, 11718 (1990).
642. Conduction Band Minima of InP: Ordering and Absolute Energies  
 S. Zollner, U. Schmid, N.E. Christensen, and M. Cardona  
*Appl. Phys. Lett.* **57**, 2339 (1990).
643. Doubly Resonant Raman Scattering in the Semimagnetic Semiconductor  $\text{Cd}_{0.95}\text{Mn}_{0.05}\text{Te}$   
 S.I. Gubarev, T. Ruf, and M. Cardona  
*Phys. Rev. B* **43**, 1551 (1991).
644. Phonons in Strained Superlattices: Ge/Ge:Si [111]  
 Yu.A. Pusep, M.P. Cinyukov, A.B. Talochkin, M. Cardona, B.A. Markov, and O.P. Pcheliakov, (in Russian).
645. Interband Transitions in Strain-Symmetrized  $\text{Ge}_4\text{Si}_6$  Superlattices  
 U. Schmid, F. Lukeš, N.E. Christensen, M. Alouani, M. Cardona, E. Kasper, H. Kibbel, H. Presting  
*Phys. Rev. Lett.* **65**, 1933 (1990).

646. Electronic and Optical Properties of  $\text{Ge}_n\text{Si}_m$  Superlattices  
 U. Schmid, N.E. Christensen, M. Cardona, and M. Alouani  
 Proc. of the 20th Int. Conf. on the Physics of Semiconductors, Tessaloniki, 1990, eds. E.M. Anastassakis and J.D. Joannopoulos, (World Scientific, Singapore, 1990) p. 865.
647. ARPES Study of Phonon Coupling to Surface States of III-V Semiconductors  
 J. Fraxedas, M.K. Kelly, and M. Cardona  
 Proc. of the 20th Int. Conf. on the Physics of Semiconductors, Tessaloniki, 1990, eds. E.M. Anastassakis and J.D. Joannopoulos, (World Scientific, Singapore, 1990) p. 211.
648. Raman Study of the Ge Phonon Side Band  
 D.J. Mowbray, H. Fuchs, D.W. Niles, M. Cardona, C. Thomsen, and B. Friedl  
 Proc. of the 20th Int. Conf. on the Physics of Semiconductors, Tessaloniki, 1990, eds. E.M. Anastassakis and J.D. Joannopoulos, (World Scientific, Singapore, 1990) p. 2017.
649. Phonon Anomalies and Structural Stability in the  $\text{R}_{2-x}\text{Ce}_x\text{CuO}_4$  System ( $\text{R} = \text{Gd, Sm, Nd, Pr}$ )  
 E.T. Heyen, R. Liu, M. Cardona, S. Piñol, D. McK. Paul, E. Morán, and M. A. Alario-Franco  
 Phys. Rev. B **43**, 2857 (1991).
650. Temperature-Dependent Angle-Resolved Photoemission Study of the Linewidth of Surface States of III-V Semiconductors  
 J. Fraxedas, M.K. Kelly, and M. Cardona  
 Phys. Rev. B **43**, 2159 (1991).
651. Resonant Raman Scattering in  $\text{YBa}_2\text{Cu}_3\text{O}_7$ : Band-theory and Experiment  
 E.T. Heyen, S.N. Rashkeev, I.I. Mazin, O.K. Andersen, R. Liu, M. Cardona, and O. Jepsen  
 Phys. Rev. Lett. **65**, 3048 (1990).
652. One-Phonon Resonant Raman Scattering in  $\text{Al}_x\text{Ga}_{1-x}\text{As}$  ( $0.5 < x < 0.7$ ): Dipole-Forbidden Fröhlich Interaction and Interference Effects  
 C. Trallero-Giner, A. Cantarero, M. Cardona, V.I. Gavrilenko  
 Phys. Rev. B **42**, 11975 (1990).
653. Hot Luminescence and Landau Level Fine Structure in Bulk GaAs  
 F. Iikawa, T. Ruf, and M. Cardona  
 Phys. Rev. B **43**, 4849 (1991).
654. Ultrafast Initial Relaxation of Hot Electrons and Holes in Tetrahedral Semiconductors via Deformation Potential Interaction: Theory and Experiment  
 S. Zollner, S. Gopalan, M. Garriga, J. Humlíček, L. Viña, and M. Cardona  
 Appl. Phys. Lett. **57**, 2838 (1990).
655. Comment on “Microscopy Theory of Optic-Phonon Raman Scattering in Quantum-Well System”  
 M. Cardona and C. Trallero-Giner  
 Phys. Rev. B **43**, 9959 (1991).
656. Effective Intervalley Deformation Potentials in the Description of Time-Resolved and Hot-Electron Luminescence  
 S. Zollner, S. Gopalan, and M. Cardona  
 Solid State Commun. **76**, 877 (1990).
657. Planar Force Constant Models and Internal Strain Parameter of Ge and Si  
 P. Molinás-Mata and M. Cardona  
 Phys. Rev. B **43**, 9799 (1991).

- 657a *Light Scattering in Solids VI: Recent Results, Including High- $T_c$  Superconductors*  
 M. Cardona and G. Güntherodt  
 Topics in Applied Physics, Vol. 68, Springer Verlag, Berlin, New York (1991).
658. Confined LO Phonons in GaAs/AlAs Superlattices  
 D.J. Mowbray, M. Cardona, and K. Ploog  
*Phys. Rev. B* **43**, 1598 (1991).
659. Resonant Raman Scattering in High Magnetic Fields  
 T. Ruf, R.T. Phillips, F. Iikawa, and M. Cardona  
 in *High Magnetic Fields of Semiconductor Physics III*,  
 Vol. 101, *Springer-Series in Solid-State Sciences*, ed. by G. Landwehr (Springer Verlag, Heidelberg, 1992), p. 541.
660. Microscopic Theory and Second-Order Raman Scattering in Silicon under Uniaxial Stress  
 C.H. Grein, S. Zollner, and M. Cardona  
*Phys. Rev. B* **43**, 6633 (1991).
661. A Comparison of the Phonon Spectra of  $^{70}\text{Ge}$  and Natural Ge Crystals: Effects of Isotope Disorder  
 H.D. Fuchs, C. H. Grein, C. Thomsen, M. Cardona, W.L. Hansen, and E.E. Haller  
*Phys. Rev. B* **43**, 4835 (1991).
662. Core Excitons and Conduction-Band Structures in Orthorhombic GeS, GeSe, SnS, and SnSe Single Crystals  
 M. Taniguchi, R.L. Johnson, J. Ghijsen, and M. Cardona  
*Phys. Rev. B* **42**, 3634 (1990).
663. Spectroscopic Ellipsometry in the 6–35 eV Region  
 J. Barth, R.L. Johnson, and M. Cardona  
 in *Handbook of Optical Constants of Solids II*, ed. by E.D. Palik, (Academic Press Inc., New York, 1991), p. 213.
664. Electron-Phonon Coupling of Apex Oxygen in  $\text{RBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 B. Friedl, C. Thomsen, E. Schönherr, and M. Cardona  
*Solid State Commun.* **76**, 1107 (1990).
665. Anisotropy and Oxygen Stoichiometry Dependence of the Dielectric Tensor of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  ( $0 \leq \delta \leq 1$ )  
 J. Kircher, M.K. Kelly, S. Rashkeev, M. Alouani, D. Fuchs, and M. Cardona  
*Phys. Rev. B* **44**, 217 (1991).
666. Optical Anisotropy in the  $\text{Pb}_2\text{Sr}_2(\text{Y,Ca})\text{Cu}_3\text{O}_{8+\delta}$  Superconductor  
 J. Kircher, M. Cardona, M. Garriga, B. Nick, M. Dürller, A. Zibold, and H.P. Geserich  
*Physica C* **174**, 377 (1991).
667. Temperature Dependence of the Dielectric Function and the Interband Critical Point Parameters of  $\text{Al}_x\text{Ga}_{1-x}\text{As}$   
 S. Logothetidis, M. Cardona, and M. Garriga  
*Phys. Rev. B* **43**, 11950 (1991).
668. Resonant Raman Scattering in [111] GaAs/AlAs Short Period Superlattices  
 F. Calle, D.J. Mowbray, D.W. Niles, M. Cardona, J.M. Calleja, and K. Ploog  
*Phys. Rev. B* **43**, 9152 (1991).

669. The Temperature Dependence of the Band Gaps in InP, InAs, InSb, and GaSb  
 S. Zollner, S. Gopalan, and M. Cardona  
*Solid State Commun.* **77**, 485 (1991).
670. Calculation of Intervalley Scattering Rates in  $\text{Al}_x\text{Ga}_{1-x}\text{As}$ : Effects of Alloy and Phonon Scattering  
 C.H. Grein, S. Zollner, and M. Cardona  
*Phys. Rev. B* **44**, 12761 (1991).
671. Light-hole Non-parabolicity in the single band approximation  
 G.C. La Rocca and M. Cardona  
*Phys. Stat. Sol. (b)* **167**, 115 (1991).
672. Phonon Dispersion Relations for Ge/Si Superlattices grown along the [100] and [111] Directions  
 P. Molinàs-Mata and M. Cardona  
*Superlattices and Microstructures* **10**, 39 (1991).
673. Resonant Spin Flip Raman Scattering on Photoexcited Carriers in p-Type  $\text{Cd}_{0.95}\text{Mn}_{0.05}\text{Te}$  Crystals  
 S.I. Gubarev, T. Ruf, and M. Cardona  
*Phys. Rev. B* **43**, 14564 (1991).
674. Dielectric Response of Strained Ge/Si Superlattices: Theory and Experiment  
 U. Schmid, F. Lukeš, N.E. Christensen, M. Alouani, and M. Cardona, E. Kasper, H. Kibbel, and H. Presting  
*Materials Science and Engineering* **B9**, 233 (1991).
675. Far-Infrared Spectroscopy of the Superconductor  $\text{YBa}_2\text{Cu}_4\text{O}_8$   
 A.P. Litvinchuk, C. Thomsen, P. Murugaraj, and M. Cardona  
*Z. Phys. B* **86**, 329 (1992).
676. Multiphonon Resonant Raman Scattering in Short Period GaAs/AlAs Superlattices  
 D.J. Mowbray, M. Cardona, and K. Ploog  
*Phys. Rev. B* **43**, 11815 (1991).
677. Electronic and Optical Properties of Strained Ge/Si Superlattices  
 U. Schmid, N.E. Christensen, M. Alouani, and M. Cardona  
*Phys. Rev. B* **43**, 14597 (1991).
678. Two Superconducting Gaps and Electron-Phonon Coupling in  $\text{YBa}_2\text{Cu}_4\text{O}_8$   
 E.T. Heyen, M. Cardona, J. Karpinski, E. Kaldis, and S. Rusiecki  
*Phys. Rev. B* **43**, 12958 (1991).
679. Strongly Dispersive Low Frequency Raman Modes in Germanium  
 M.L. Bansal, A.K. Sood, and M. Cardona  
*Solid State Commun.* **78**, 579 (1991).
680. Optical phonons in the  $T^*$ -structure:  $\text{Nd}_{2-x-y}\text{Ce}_x\text{Sr}_y\text{CuO}_4$   
 A.P. Litvinchuk, C. Thomsen, P. Murugaraj, E.T. Heyen, and M. Cardona  
*Phys. Rev. B* **43**, 13060 (1991).
681. Phonons in Semiconductor Superlattices  
 M. Cardona  
*Surface Sciences, Lectures on Basic Concepts and Applications*, Proc. of Sixth Latin American Symposium on Surface Science, Cusco, Peru, 1990, eds. F.A. Ponce and M. Cardona (Springer Verlag, Heidelberg, 1991) p. 319.

682. Symmetry and Strain-induced Effects at the  $W$ -point of the Brillouin Zone of Face-centered Cubic Crystals  
 G.C. La Rocca, U. Schmid, and M. Cardona  
*Phys. Rev. B* **44** 2979 (1991).
683. Microscopic Theory of Intervalley Scattering in InP  
 S. Zollner, Sudha Gopalan, and M. Cardona  
*Phys. Rev. B* **44**, 13446 (1992).
684. Intensity Anomalies of Raman-Active Phonons in the Superconducting State of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 B. Friedl, C. Thomsen, H.-U. Habermeier, and M. Cardona  
*Solid State Commun.* **78**, 291 (1991).
685. Optical Emission of Exciton-phonon Quasiparticle in InP  
 F. Iikawa, C. Trallero-Giner, and M. Cardona  
*Solid State Commun.* **79**, 131 (1991).
686. Spectroscopic Ellipsometry of Cubic and Hexagonal CdS  
 D. Fuchs, R.L. Johnson, J. Kircher, M.K. Kelly, M. Cardona, Ph. Hofmann, Ch. Maierhofer, K. Horn, and A.M. Bradshaw  
*BESSY, Annual Report*, 1991.
687. Free-carrier optical response of  $\text{YBa}_2\text{Cu}_3\text{O}_7$   
 J. Humlíček, J. Kircher, H.-U. Habermeier, M. Cardona, Y. Fang, U. Welp, K. Vanderwoort, and D. Crabtree  
*Solid State Commun.* **79**, 673 (1991).
688. Interface Phonons in Short-period GaAs/AlAs Superlattices: Wavevector-selective and Defect-activated  
 H.D. Fuchs, D.J. Mowbray, M. Cardona, S.A. Chalmers, and A.C. Gossard  
*Solid State Commun.* **79**, 223 (1991).
689. An optical investigation of the valency of Pr in  $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$   
 J. Kircher, M. Cardona, S. Gopalan, H.-U. Habermeier, and D. Fuchs  
*Phys. Rev. B* **44**, 2410 (1991).
690. Effect of substitutional impurities on the superconducting gap of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 C. Thomsen, B. Friedl, M. Cieplak, and M. Cardona  
*Solid State Commun.* **78**, 727 (1991).
691. Concluding Remarks  
 in: *Light Scattering in Semiconductor Structures and Superlattices*  
 M. Cardona  
 eds. D.J. Lockwood and J.F. Young (Plenum Press, New York, 1991), p. 587.
692. Isotope Effects on the Electronic Excitations and Phonons in Semiconductors  
 M. Cardona, C.H. Grein, H.D. Fuchs, and S. Zollner, *J. Non-Cryst. Solids* **141**, 257 (1992).
693. Coupling of Phonons to Crystal Field Excitations in  $\text{NdBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 E.T. Heyen, R. Wegerer, and M. Cardona, *Phys. Rev. Lett.* **67**, 144 (1991).
694. Inelastic Light Scattering from Semiconductors  
 E. Burstein, M. Cardona, D.J. Lockwood, A. Pinczuk, and J.F. Young  
*Light Scattering in Semiconductor Structures and Superlattices*, ed. by D.J. Lockwood and J.F. Young (Plenum Press, New York, 1991) p. 1.

695. Infrared optical response of  $\text{YBa}_2\text{Cu}_3\text{O}_7$  and  $\text{PrBa}_2\text{Cu}_3\text{O}_7$ : an ellipsometric study  
 J. Humlíček, J. Kircher, H.-U. Habermeier, M. Cardona, and A. Röseler  
*Physica C* **190**, 383 (1992).
696. Anharmonic Decay-time, Isotopic Scattering-time, and Inhomogeneous Line-broadening of Optical Phonons in  $^{70}\text{Ge}$ ,  $^{76}\text{Ge}$ , and natural Ge Crystals  
 H.D. Fuchs, C.H. Grein, R.I. Devlen, J. Kuhl, and M. Cardona  
*Phys. Rev. B* **44**, 8633 (1991).
697. Carrier thermalization in  $\text{Cu}_2\text{O}$ : Phonon emission by excitons  
 D.W Snoke, D. Braun, and M. Cardona  
*Phys. Rev. B* **44**, 2991 (1991).
698. Raman Study of the Coupling of Crystal Field Excitations to Phonons in  $\text{NdBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 E.T. Heyen, R. Wegerer, E. Schönherr, and M. Cardona  
*Phys. Rev. B* **44**, 10195 (1991).
699. Raman Scattering in Semiconductors and High- $T_c$  Superconductors  
 M. Cardona  
*Proc. SPIE*, Vol. 1599, 139 (1992).
700. Isotope and Temperature Shifts of Direct and Indirect Band Gaps in Diamond-type Semiconductors  
 S. Zollner, M. Cardona and Sudha Gopalan  
*Phys. Rev. B* **45**, 3376 (1992).
701. An Optical Investigation of the Valency of Pr in  $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_7$   
 J. Kircher, J. Humlíček, D. Fuchs, H.-U. Habermeier, and M. Cardona  
*Physica C* **185-189**, 957 (1991).
702. Coupling of phonons to crystal excitations in  $\text{NdBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 E.T. Heyen, M. Cardona, R. Wegerer, and M. Cardona  
*Physica C* **185-189**, 1043 (1991).
703. Two Superconducting gaps and electron-phonon coupling in  $\text{YBa}_2\text{Cu}_4\text{O}_8$   
 E.T. Heyen, M. Cardona, J. Karpinski, E. Kaldis, and S. Rusiecki  
*Physica C* **185-189**, 1749 (1991).
704. Investigation of the dielectric tensor in  $\text{YBa}_2\text{Cu}_3\text{O}_7$   
 S. Gopalan, J. Kircher, O.K. Andersen, O. Jepsen, M. Alouani, and M. Cardona  
*Physica C* **185-189**, 1473 (1991).
705. Infrared-Active Phonons in  $\text{La}_{2-x}\text{Sr}_x\text{CaCu}_2\text{O}_6$   
 A.P. Litvinchuk, C. Thomsen, M. Cardona, P. Stastny, and D.M. Mateev  
*Phys. Rev. B* **44**, 9723 (1991).
706. Spin Flip Raman Scattering in GaAs/AlGaAs Multiple Quantum Wells  
 V.F. Sapega, M. Cardona, K. Ploog, E.L. Ivchenko and D.N. Mirlin  
*Phys. Rev. B* **45**, 4320 (1992).
707. Multiphonon Resonant Raman Scattering in a Strong Magnetic Field  
 C. Trallero-Giner, F. Iikawa, and M. Cardona  
*Phys. Rev. B* **44**, 12815 (1991).
708. Resonant Raman scattering in insulating  $\text{YBa}_2\text{Cu}_3\text{O}_6$  as a probe of its electronic structure  
 E.T. Heyen, J. Kircher, and M. Cardona  
*Phys. Rev. B* **45**, 3037 (1992).

709. Raman Scattering in High- $T_c$  Superconductors  
 M. Cardona  
*Physica C* **185-189**, 65 (1991).
710. Infrared Reflectivity of  $R\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$  Superconductors: Phonon Self-Energy Effects  
 A.P. Litvinchuk, C. Thomsen, and M. Cardona  
*Physica C* **185-189**, 987 (1991).
711. The Influence of Au and Pr on the Superconductivity-Related Gap in  $\text{RBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 C. Thomsen, B. Friedl, M. Cieplak, and M. Cardona  
*Physica C* **185 - 189**, 745 (1991).
712. Optical Transition in Strained Ge/Si Superlattices  
 U. Schmid, J. Humlíček, F. Lukeš, M. Cardona, H. Presting, H. Kibbel, E. Kasper, K. Eberl,  
 W. Wegscheider, and G. Abstreiter  
*Phys. Rev. B* **45**, 6793 (1992).
- 712a. Optical Transition in Strained Ge/Si Superlattices  
 U. Schmid, J. Humlíček, F. Lukeš, M. Cardona, H. Presting, H. Kibbel, E. Kasper, K. Eberl,  
 W. Wegscheider, and G. Abstreiter  
*Thin Solid Films* **222**, 246 (1992).
713. Local Vibrational Modes of Ge-rich c- $\text{Si}_{1-x}\text{Ge}_x$  Alloys  
 C.H. Grein and M. Cardona  
*Phys. Rev. B* **45**, 8328 (1992).
714. High-Resolution Raman Spectroscopy of Ge-rich c- $\text{Ge}_{1-x}\text{Si}_x$  Alloys: Novel Phenomena of  
 the Ge-Ge Vibrational Modes  
 H.D. Fuchs, C.H. Grein, M.I. Alonso, and M. Cardona  
*Phys. Rev. B* **44**, 13120 (1991).
715. Infrared Absorption in  $^{76}\text{Ge}$  and Natural Ge Crystals: Effects of Isotopic Disorder on  $\vec{q} \neq 0$ -phonons  
 H.D. Fuchs, C.H. Grein, M. Bauer, and M. Cardona  
*Phys. Rev. B* **45**, 4065 (1992).
716. Resonant Raman Scattering in Quantum Wells under High Magnetic Fields: Deformation  
 Potential Interaction  
 A. Cros, A. Cantarero, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **45**, 6106 (1992).
717. Optical Anisotropy in GaAs/AlAs (110) Superlattices  
 U. Schmid, N.E. Christensen, M. Cardona, F. Lukeš, and K. Ploog  
*Phys. Rev. B* **45**, 3546 (1992).
718. Chain-Oxygen Vibrations in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  and  $\text{YBa}_2\text{Cu}_3\text{O}_8$   
 C. Thomsen, A.P. Litvinchuk, E. Schönherr, and M. Cardona  
*Phys. Rev. B* **45**, 8154 (1992).
719. Far-Infrared Study of Phonon Anomalies in  $R\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$  and  $\text{YBa}_2\text{Cu}_3\text{O}_8$  Superconductors  
 A.P. Litvinchuk, C. Thomsen, M. Cardona  
 Sixteenth International Conference on Infrared and Millimeter Waves, M.R. Siegrist, M.Q. Tran, T.M. Tran, Eds., SPIE, Vol. 1576, p. 22 (1991).
720. Self-Energies of Infrared-Active Phonons in  $R\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$   
 A.P. Litvinchuk, C. Thomsen, and M. Cardona  
*Solid State Commun.* **80**, 257 (1991).

721. Short-Range Deformation-Potential Interaction and its Application to Ultrafast Processes in Semiconductors  
 S. Zollner, S. Gopalan, and M. Cardona  
*Semicond. Sci. Technol.* **7**, B137 (1992).
722. Effects of Landau-Damping on the Raman-active Phonons of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 B. Friedl, C. Thomsen, H.-U. Habermeier, and M. Cardona  
*Solid State Commun.* **81**, 989 (1992).
723. Phonon-Absorption Recombination Luminescence of Room Temperature Excitons in  $\text{Cu}_2\text{O}$   
 D.W. Snoke, A.J. Shields, and M. Cardona  
*Phys. Rev. B* **45**, 11693 (1992).
724. Effect of Oxygen Disorder on Superconductivity-Induced Self-Energy Effects in Impurity-Free  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 V.G. Hadjiev, C. Thomsen, A. Erb, G. Müller-Vogt, M.R. Koblischka, and M. Cardona  
*Solid State Commun.* **80**, 643 (1991).
725. Analysis of the Phenomenological Models for Long Wave Polar Optical Modes in Semiconductor Layered Systems  
 C. Trallero-Giner, F. García-Moliner, V.R. Velasco, and M. Cardona  
*Phys. Rev. B* **45**, 11944 (1992).
726. Problems in Optical Properties of Semiconductors and their Solution  
 Manuel Cardona  
 Proceedings of the International School of Physics “Enrico Fermi”, ed. by A. Stella and L. Miglio, *Semiconductor Superlattices and Interfaces*, (North-Holland, Amsterdam, 1993), p. 435.
727. Impurity Induced Resonant Raman Scattering  
 C. Trallero-Giner, A. Cantarero, M. Cardona, and M. Mora  
*Phys. Rev. B* **45**, 6601 (1992).
728. Raman Scattering in Bulk Semiconductors and Semiconductor Microstructures  
 M. Cardona  
*Inst. Phys. Conf. Ser.* **123**, 219 (1992).
729. Interband Transitions in  $\text{YBa}_2\text{Cu}_3\text{O}_7$   
 J. Kircher, J. Humlíček, M. Garriga, M. Cardona, D. Fuchs, H.-U. Habermeier, O. Jepsen, S. Gopalan, O.K. Andersen, Y. Fang, U. Welp, K. Vandervoort, and G. Crabtree  
*Physica C* **192**, 473 (1992).
730. One-LO-Phonon Resonant Raman Scattering in Wide-Gap Diluted Magnetic Semiconductors  
 W. Limmer, S. Bauer, H. Leiderer, W. Gebhardt, A. Cantarero, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **45**, 11709 (1992).
731. The Piezo-Optical Response of Ge in the Visible-UV Range  
 P. Etchegoin, J. Kircher, M. Cardona, and C. Grein  
*Phys. Rev. B* **45**, 11721 (1992).
732. Design of a Compact Uniaxial Stress Apparatus for Optical Measurements  
 J. Kircher, W. Böhringer, W. Dietrich, H. Hirt, P. Etchegoin, and M. Cardona  
*Rev. Sci. Instr.* **63**, 3733 (1992).

733. The Origin of Visible Luminescence from “Porous Silicon” a New Interpretation  
 M.S. Brandt, H.D. Fuchs, M. Stutzmann, J. Weber, and M. Cardona  
*Solid State Commun.* **81**, 307 (1992).
734. Effect of Electronic Excitations on Light Scattering and on Phonon Self-Energies in Metals and Doped Semiconductors  
 M. Cardona and I.P. Ipatova  
 in *Elementary Excitations in Solids*, ed. by J.L. Birman, C. Sébenne and R.F. Wallis (Elsevier Science Publ., Amsterdam, 1992), p. 237.
735. Confined LO Phonons in GaAs/AlAs Superlattices with Periodically Corrugated Interfaces  
 A.J. Shields, R. Nötzel, M. Cardona, L. Däweritz, and K. Ploog  
*Appl. Phys. Lett.* **60**, 2537 (1992).
736. Multiphonon Resonant Raman Scattering in a Magnetic Field  
 C. Trallero-Giner, M. Cardona, and F. Iikawa  
 Proc. of XIIIth International Conference on Raman Spectroscopy, ed. by W. Kiefer, M. Cardona, G. Schaack, F.W. Schneider, H.W. Schrötter, (John Wiley & Sons, Chichester, 1992), p. 864.
737. Observation of the Coupling between a Crystal-Field Excitation of Nd<sup>3+</sup> and a Raman-Active Phonon in Pb<sub>2</sub>Sr<sub>2</sub>NdCu<sub>3</sub>O<sub>8</sub>  
 R. Wegerer, C. Thomsen, M. Cardona, M. Reedyk, J.S. Xue, and J.E. Greedan  
 Proc. of XIIIth International Conference on Raman Spectroscopy ed. by W. Kiefer, M. Cardona, G. Schaack, F.W. Schneider, H.W. Schrötter, (John Wiley & Sons, Chichester, 1992), p. 896.
738. Raman-Scattering Test for Local Orthorhombic Strains in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>x</sub>  
 V.G. Hadjiev, C. Thomsen, and M. Cardona  
 Proc. XIII. Int. Conference on Raman Spectroscopy,  
 ed. by W. Kiefer, M. Cardona, G. Schaack, F.W. Schneider, H.W. Schrötter, (John Wiley & Sons, Chichester, 1992), p. 878.
739. Optical Phonons in (Y/Pr)Ba<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> Superlattices  
 A.P. Litvinchuk, D. Leach, C. Thomsen, I. Trofimov, H.-U. Habermeier, and M. Cardona  
 Proc. of XIIIth International Conference on Raman Spectroscopy, ed. by W. Kiefer, M. Cardona, G. Schaack, F.W. Schneider, H.W. Schrötter, (John Wiley & Sons, Chichester, 1992), p. 888.
740. Magneto-Raman Scattering in Quantum Wells: Fröhlich Interaction  
 A. Cros, A. Cantarero, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **42**, 12 627 (1992).
741. Isotopic Disorder-Effects on the Phonons in Germanium  
 H.D. Fuchs, C.H. Grein, M. Cardona, W.L. Hansen, K. Itoh, and E.E. Haller  
*Solid State Commun.* **82**, 225 (1992).
742. Room Temperature Annealing of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub> Observed by Optical Measurements  
 J. Kircher, E. Brücher, E. Schönherr, R.K. Kremer, and M. Cardona  
*Phys. Rev. B* **46**, 588 (1992).
743. Comment on “Axial Oxygen-Centered Lattice Instabilities in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>: An Application of the Analysis of Extended X-ray-Absorption Fine Structure in Anharmonic Systems”  
 C. Thomsen and M. Cardona  
*Phys. Rev. B* **47**, 12 320 (1993).

744. Alloy Versus Phonon Contributions to Intervalley Scattering in  $\text{Al}_{1-x}\text{Ga}_x\text{As}$   
 S. Zollner, C.H. Grein, and M. Cardona, in "Ultrafast Lasers Probe Phenomena in Semiconductors and Superconductors, ed. by R.R. Alfano, Proc. SPIE **1677**, p. 75 – 84 (1992).
745. Theoretical and Experimental Investigation of the Linear Optical Response of  $\text{YBa}_2\text{Cu}_4\text{O}_8$ : The Relevance of LDA Calculations  
 J. Kircher, M. Cardona, M. Alouani, S. Gopalan, O. Jepsen, O.K. Andersen, E. Kaldis, J. Karpinski, and S. Rusiecki  
*Physica C* **200**, 413 (1992).
746. Stress-Induced Optical Activity in the Zincblende-Type Semiconductors  
 P. Etchegoin and M. Cardona  
*Solid State Commun.* **82**, 655 (1992).
747. Chain-Oxygen Vibrations and Phonon Anomalies above  $T_c$  in  $\text{RBa}_2\text{Cu}_3\text{O}_7$  and  $\text{YBa}_2\text{Cu}_4\text{O}_8$   
 A.P. Litvinchuk, C. Thomsen, and M. Cardona  
 in *Electronic Properties of High-Temperature Superconductors*, ed. by H. Kuzmany, M. Mehring and J. Fink (Springer Verlag, Heidelberg, 1992), p. 306.
- 747a. Phonon Self-Energy Effects in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Below  $T_c$ : The Role of Oxygen Disorder  
 V.G. Hadjiev, C. Thomsen, and M. Cardona  
 in *Electronic Properties of High-Temperature Superconductors*, ed. by H. Kuzmany, M. Mehring and J. Fink (Springer Verlag, Heidelberg, 1992), p. 220.
748. Electric Field Effects on Resonant Raman Spectroscopy of Quantum Wells  
 A.J. Shields, C. Trallero-Giner, M. Cardona, V.A. Haisler, D.A. Tenne, N.T. Moshegov, and A.I. Toropov  
 Proc. of XIIIth International Conference on Raman Spectroscopy, ed. by W. Kiefer, M. Cardona, G. Schaack, F.W. Schneider, H.W. Schrötter, (John Wiley & Sons, Chichester, 1992), p. 858.
749. Optical Phonons in Ultrashort Period GaAs/AlAs Superlattices  
 J. Spitzer, T. Ruf, M. Cardona, K. Ploog, F. Briones, and M.I. Alonso  
 Proc. of XIIIth International Conference on Raman Spectroscopy, ed. by W. Kiefer, M. Cardona, G. Schaack, F.W. Schneider, H.W. Schrötter, (John Wiley & Sons, Chichester, 1992), p. 860.
750. Spin-Flip Raman Scattering in  $\text{GaAs}/\text{Al}_{0.33}\text{Ga}_{0.67}\text{As}$  Quantum Wells  
 V.F. Sapega, T. Ruf, M. Cardona, K. Ploog, E.L. Ivchenko, and D.N. Mirlin  
 Proc. of XIII. International Conference on Raman Spectroscopy, ed. by W. Kiefer, M. Cardona, G. Schaack, F.W. Schneider, H.W. Schrötter, (John Wiley & Sons, Chichester, 1992), p. 856.
751. Secondary Emission and Acoustic Phonon Scattering Induced by Strong Magnetic Fields in Multiple Quantum Wells  
 V.F. Sapega, V.I. Belitsky, T. Ruf, H.D. Fuchs, M. Cardona, and K. Ploog  
*Phys. Rev. B* **46**, 16005 (1992).
752. Piezo-Optics of GaAs  
 P. Etchegoin, J. Kircher, M. Cardona, C. Grein, and E. Bustarret  
*Phys. Rev. B* **46**, 15139 (1992).
753. Resonant Raman Scattering in GaAs/AlAs Superlattices under Electric Fields  
 A.J. Shields, C. Trallero-Giner, M. Cardona, H.T. Grahn, and K. Ploog, V.A. Haisler, D.A. Tenne, N.T. Moshegov, and A.I. Toropov  
*Phys. Rev. B* **46**, 6990 (1992).

754. Phonons and Internal Stresses in IV-IV and III-V Semiconductors: The Planar Bond-Charge Model  
 P. Molinàs-Mata, A.J. Shields, and M. Cardona  
*Phys. Rev. B* **47**, 1866 (1993).
755. Magnetic-Field-Induced Resonant Behavior of Two-Phonon Raman Scattering in Semiconductors with Equal Effective Masses for Electrons and Holes  
 V.I. Belitsky, M. Cardona, and A. Cantarero  
*Phys. Rev. B* **47**, 3626 (1993).
756. Determination of the Degree of Epitaxy in High- $T_c$  Thin Films by Raman Spectroscopy  
 C. Thomsen, R. Wegerer, H.-U. Habermeier, and M. Cardona  
*Solid State Commun.* **83**, 199 (1992).
757. Phonon Anomalies Above  $T_c$  in  $\text{YBa}_2\text{Cu}_4\text{O}_8$  and  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Superconductors: an Effect of Coupling to Spin Excitations  
 A.P. Litvinchuk, C. Thomsen, and M. Cardona  
*Solid State Commun.* **83**, 343 (1992).
758. A Raman Study of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}/\text{PrBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Superlattices  
 A.P. Litvinchuk, C. Thomsen, I.E. Trofimov, H.-U. Habermeier, and M. Cardona  
*Phys. Rev. B* **46**, 14017 (1992).
759. Resonant One-Acoustic-Phonon Scattering in Multiple Quantum Wells  
 V.F. Sapega, V.I. Belitsky, A.J. Shields, T. Ruf, M. Cardona, and K. Ploog  
*Solid State Commun.* **84**, 1039 (1992).
760. Effect of Heavy Doping on the Optical Properties and Band Structure of GaAs  
 F. Lukeš, S. Gopalan, and M. Cardona  
*Phys. Rev. B* **47**, 7071 (1993).
761. Raman Study of Crystal-Field Phonon Coupling in  $\text{NdBa}_2\text{Cu}_3\text{O}_{7-\delta}$  in a Magnetic Field  
 T. Ruf, E.T. Heyen, M. Cardona, J. Mesot, and A. Furrer  
*Phys. Rev. B* **46**, 11 792 (1992).
762. Nonequilibrium Exciton Kinetics in  $\text{CuO}_2$   
 D. Snoke, D. Braun, and M. Cardona  
*Journal of Luminescence* **53**, 415 (1992).
763. Isotope Effect in Ge: A Photoluminescence Study  
 P. Etchegoin, J. Weber, M. Cardona, W.L. Hansen, K. Itoh, and E.E. Haller  
*Solid State Commun.* **83**, 843 (1992).
764. Influence of the Exciton Lifetime on Resonant Raman Scattering in Quantum Wells  
 A.J. Shields, M. Cardona, R. Nötzel, and K. Ploog  
*Phys. Rev. B* **46**, 10 490 (1992).
765. Spatial Correlation of Electrons and Holes in Multi-Phonon Resonant Raman Scattering in a High Magnetic Field  
 V.I. Belitsky, M. Cardona, I.G. Lang, S.T. Pavlov  
*Phys. Rev. B* **46**, 15767 (1992).
766. Linear Optical Response of Semiconductors  
 M. Cardona  
*Journal of Electronic Materials* **22**, 27 (1993).

767. Difference Frequency Raman Scattering and Confined Optical Phonons in Ultrashort-Period  $(\text{GaAs})_n/(\text{AlAs})_n$  Superlattices  
 J. Spitzer, I. Gregora, T. Ruf, M. Cardona, K. Ploog, F. Briones and M.I. Alonso  
*Solid State Commun.* **84**, 275 (1992).
768. Damping of Spin Excitations in the  $\text{HT}_c$ -Cuprates: Undoped and Lightly Doped Material  
 P. Knoll, S. Lo, P. Murugaraj, E. Schönherr, and M. Cardona  
*Springer Series in Solid State Sciences* **113**, 286 (1993).
769. Resonant Raman Scattering in Quantum Wells under High Magnetic Fields  
 A. Cros, A. Cantarero, C. Trallero-Giner, and M. Cardona  
*Helvetica Physica Acta* **65**, 343 (1992).
770. Phonons and Electron-Phonon Interaction in High  $T_c$  Superconductors  
 M. Cardona  
 Proceedings of the XXI, European Congress on Molecular Spectroscopy  
 Vienna, Austria, *Journal of Molecular Structure* **292**, 255 (1993), ed. by A.J. Barnes, W.J. Orville-Thomas, R. Kellner, K. Taga, and W. Landvoigt.
771. Resonant Magneto-Raman Scattering by Acoustic Phonons in Quantum Wells and Superlattices  
 T. Ruf, V.F. Sapega, J. Spitzer, V.I. Belitsky, M. Cardona, and K. Ploog  
*NATO ASI Series, Phonons in Semiconductors Nanostructures* ed. by J.P. Leburton, J. Pascual, and S. Sotomajor Torres, p. 83–92 (1993).
772. Crystal-Field Phonon Interaction and In-Plane Charge Transfer in  $\text{NdBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 T. Ruf, R. Wegerer, E.T. Heyen, M. Cardona, and A. Furrer  
*Solid State Commun.* **85**, 297 (1993).
773. Fröhlich Exciton-Phonon Interaction in Quantum Wells: Resonant Raman Spectroscopy under Electric Fields  
 A.J. Shields, V.A. Haisler, C. Trallero-Giner, and M. Cardona  
*NATO ASI Series, Phonons in Semiconductors Nanostructures* ed. by J.P. Leburton, J. Pascual, and S. Sotomajor Torres, **236**, 233 (1993).
774. Modelling the Optical Response of Surfaces Measured by Spectroscopic Ellipsometry: Application to Si and Ge  
 M.K. Kelly, S. Zollner, and M. Cardona  
*Surface Science* **285**, 282 (1993).
775. Visible Luminescence from Porous Silicon and Siloxene  
 H.D. Fuchs, M. Stutzmann, M.S. Brandt, M. Rosenbauer, J. Weber, and M. Cardona  
*Physica Scripta* **T45**, 309 (1992).
776. Visible Luminescence from Silicon: Quantum Confinement or Siloxene  
 M.S. Brandt, H.D. Fuchs, A. Höpner, M. Rosenbauer, M. Stutzmann, J. Weber, M. Cardona, and H.-J. Queisser, *MRS Symp. Proc. Vol.* **262**, 849 (1992).
777. Quality of AlAs-like and InSb-like Interfaces in InAs/AlSb Superlattices: An Optical Study  
 J. Spitzer, H.D. Fuchs, P. Etchegoin, M. Ilg, M. Cardona, B. Brar, and H. Kroemer  
*Appl. Phys. Lett.* **62**, 2274 (1993).
778. Elasto-optical Constant of Si  
 P. Etchegoin, J. Kircher, and M. Cardona  
*Phys. Rev. B* **47**, 10292 (1993).

779. Above- $T_c$  Anomalies of the Infrared-Active Phonons in  $\text{RBa}_2\text{Cu}_4\text{O}_8$  ( $\text{R} = \text{Dy}, \text{Ho}$ ) and  $\text{Y}_2\text{Ba}_4\text{Cu}_7\text{O}_{15-\delta}$  Superconductors  
 A.P. Litvinchuk, C. Thomsen, M. Cardona, J. Karpinski, E. Kaldis, S. Rusiecki  
*Z. Phys. B* **92**, 9 (1993).
780. A Comment on the Superconductivity-Induced Broadening of the  $340 \text{ cm}^{-1}$  Raman-active Phonon in  $\text{YBa}_2\text{Cu}_3\text{O}_7$   
 C. Thomsen and M. Cardona  
*Physica C* **206**, 137 (1993).
781. Vibrational Band Modes in Germanium: Isotopic Disorder-Induced Raman Scattering  
 H.D. Fuchs, P. Etchegoin, M. Cardona, K. Itoh, and E.E. Haller  
*Phys. Rev. Lett.* **70**, 1715 (1993).
782. Lattice Vibrations of  $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_7$ : Theory and Experiment  
 J. Humlíček, A.P. Litvinchuk, W. Kress, B. Lederle, C. Thomsen, M. Cardona, H.-U. Habermann, I.E. Trofimov, and W. König  
*Physica C* **206**, 345 (1993).
783. Circular Birefringence in zincblende-type semiconductors  
 P. Etchegoin and M. Cardona  
*Thin Solid Films* **233**, 137 (1993).
784. Piezo-optical Response of Semiconductors  
 P. Etchegoin, J. Kircher, and M. Cardona  
*Thin Solid Films* **223**, 141 (1993).
785. Crystal Field Raman Scattering in  $\text{Nd}_2\text{CuO}_4$   
 S. Jandl, M. Iliev, C. Thomsen, T. Ruf, M. Cardona, B.M. Wanklyn, and C. Chengkang  
*Solid State Commun.* **87**, 609 (1993).
786. Resonant Magneto-Luminescence of High Quality GaAs  
 S.I. Gubarev, T. Ruf, M. Cardona, and K. Ploog  
*Solid State Commun.* **85**, 853 (1993).
787. A Bond Polarizability Model for the  $\text{C}_{60}$  Raman Spectrum  
 D.W. Srore and M. Cardona  
*Solid State Commun.* **87**, 121 (1993).
788. Tunneling Effects upon Resonant Raman Scattering Intensities in GaAs/AlAs Superlattices  
 A.J. Shields, M. Cardona, H.T. Grahn, and K. Ploog  
*Phys. Rev. B* **47**, 13922 (1993).
789. Raman Scattering Probe of Oxygen Ordering during Room Temperature Annealing of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 V.G. Hadjiev, C. Thomsen, J. Kircher, and M. Cardona  
*Phys. Rev. B* **47**, 9148 (1993).
790. Dielectric Function of Cubic and Hexagonal CdS in the Vacuum Ultraviolet Region  
 Ph. Hofmann, K. Horn, A.M. Bradshaw, R.L. Johnson, D. Fuchs, and M. Cardona  
*Phys. Rev. B* **47**, 1639 (1993).
791. Self-Consistent Calculation of Intervalley Deformation Potentials in GaAs and Ge  
 S. Krishnamurthy and M. Cardona  
*J. Appl. Phys.* **74**, 2117 (1993).

792. Polaron Effect in Resonant Raman Scattering from Quantum Wells in a High Magnetic Field: Decomposition of Electron and Hole Contributions  
 V.I. Belitsky and M. Cardona  
*Phys. Rev. B* **47**, 13003 (1993).
793. Magneto-Luminescence of GaAs in the Quasiclassical Limit  
 S.I. Gubarev, T. Ruf, M. Cardona, and K. Ploog  
*Phys. Rev. B* **48**, 1647 (1993).
794. Temperature Dependence of the Dielectric Function and the Interband Critical-Point Parameters of GaP  
 S. Zollner, M. Garriga, J. Kircher, J. Humlíček, M. Cardona, and G. Neuhold  
*Phys. Rev. B* **48**, 7915 (1993).
795. Porous Silicon and Siloxene: Vibrational and Structural Properties  
 H.D. Fuchs, M. Stutzmann, M.S. Brandt, M. Rosenbauer, J. Weber, A. Breitschwerdt, and M. Cardona  
*Phys. Rev. B* **48**, 8172 (1993).
796. Effect of Isotopic Disorder and Mass on the Electronic and Vibronic Properties of Three, Two, and One-Dimensional Solids  
 M. Cardona, P. Etchegoin, H.D. Fuchs, and P. Molinàs-Mata  
*J. of Phys.: Condensed Matter*, Vol. 5, Suppl. 33A, A61 (1993).
797. Phonon Side-Bands in the Optical Emission of Zincblende-Type Semiconductors  
 C. Trallero-Giner, M. Cardona, and F. Iikawa  
*Phys. Rev. B* **48**, 5187 (1993).
798. Electroreflectance Study of the  $E_1$  and  $E_0$  Optical Transitions in Thin Ge/Si Superlattices  
 P.A.M. Rodrigues, F. Cerdeira, M. Cardona, E. Kasper, and H. Kibbel  
*Solid State Commun.* **86**, 637 (1993).
799. Folded Acoustic Phonons in GaAs/AlAs Corrugated Superlattices Grown along the [311] Direction  
 Z.V. Popović, J. Spitzer, T. Ruf, M. Cardona, R. Nötzel, and K. Ploog  
*Phys. Rev. B* **48**, 1659 (1993).
800. Resonant Raman Scattering of Oxygen-Deficient  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ : Evidence for the Coexistence of  $OI$ ,  $OII$ , and  $T$  Microstructures  
 M. Iliev, C. Thomsen, V. Hadjiev, and M. Cardona  
*Phys. Rev. B* **47**, 12341 (1993).
801. Evidence for a Scaling of the Superconducting Gap with  $T_c$  in  $\text{Pr}_x\text{Y}_{1-x}\text{Ba}_2\text{Cu}_4\text{O}_8$   
 A.P. Litvinchuk, C. Thomsen, M. Cardona, L. Börjesson, M. Käll, P. Berastegui, and L.-G. Johansson  
*Solid State Commun.* **87**, 907 (1993).
802. Recent Results in Raman Spectroscopy of High- $T_c$  Superconductors  
 M. Cardona  
*J. Phys. Chem. Solids* **54**, 1287 (1993).
803. Crystal-Field Excitation Phonon Coupling in  $\text{Pb}_2\text{Sr}_2\text{NdCu}_3\text{O}_{8+\delta}$   
 R. Wegerer, C. Thomsen, T. Ruf, E. Schönherr, M. Cardona, M. Reedyk, J.S. Xue, J.E. Greidan, and A. Furrer  
*Phys. Rev. B* **48**, 6413 (1993).

804. Phonons in Isotopically Disordered Ge  
 P. Etchegoin, H.D. Fuchs, J. Weber, M. Cardona, L. Pintschovius, N. Pyka, K. Itoh, and E.E. Haller  
*Phys. Rev. B* **48**, 12661 (1993).
805. Electronic Structure of  $\alpha$ -Sn and its Dependence on Hydrostatic Strain  
 T. Brudevoll, D.S. Citrin, M. Cardona, and N.E. Christensen  
*Phys. Rev. B* **48**, 8629 (1993).
806. Optical Modes in GaAs/AlAs Superlattices  
 M.P. Chamberlain, M. Cardona, B.K. Ridley  
*Phys. Rev. B* **48**, 14356 (1993).
807. Nonlinear Optical Spectroscopy in GaAs: Magnetic Freeze Out of Excitons  
 Min Jiang, Hailin Wang, R. Merlin, M. Cardona, and D.G. Steel  
*Phys. Rev. B* **48**, 15476 (1993).
808. Raman Scattering from Folded Phonon Dispersion Gaps  
 T. Ruf, V.I. Belitsky, J. Spitzer, V.F. Sapega, M. Cardona, and K. Ploog  
*Phys. Rev. Lett.* **71**, 3035 (1993).
809. Isotopic Ge Superlattices: Vibrational Properties  
 H.D. Fuchs, P. Molinàs-Mata, and M. Cardona  
*Superlattices and Microstructures* **13**, 447 (1993).
810. Self-Energy Effects of the  $B_{1g}$  Phonon in  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$   
 D.H. Leach, C. Thomsen, M. Cardona, L. Mihaly, and C. Kendziora  
*Solid State Commun.* **88**, 457 (1993).
811. Disorder-Induced Raman Scattering of Folded Phonons in Quantum Wells and Superlattices  
 T. Ruf, V.I. Belitsky, J. Spitzer, V.F. Sapega, M. Cardona, and K. Ploog  
*Solid State Electronics* **37**, 609 (1994).
812. Optical Modes in GaAs/AlAs superlattices  
 M.P. Chamberlain and M. Cardona  
*Semicon. Sci. and Technol.* **9**, 749 (1994).
813. Comment on “Renormalization of Phonons in a (Y/Pr) $\text{Ba}_2\text{Cu}_3\text{O}_7$  Superlattice Investigated by Raman Spectroscopy  
 C. Thomsen and M. Cardona  
*Phys. Rev. Lett.* **71**, 2163 (1993).
814. Temperature Dependence of the Dielectric Function and the Interband Critical-Point Parameters of GaP  
 S. Zollner, M. Garriga, J. Kircher, J. Humlíček, M. Cardona and G. Neuhold  
*Thin Solid Films* **233**, 185 (1993).
815. Dielectric Tensor of  $\text{YBa}_2\text{Cu}_4\text{O}_8$ : Experiment and Theory  
 J. Kircher, M. Cardona, A. Zibold, H.-P. Geserich, E. Kaldis, J. Karpinski, and S. Rusiecki  
*Phys. Rev. B* **48**, 3993 (1993).
816. Optical Properties of the Y-Ba Cuprates: Mainly a Band Structure Point of View  
 J. Kircher, S. Gopalan, and M. Cardona  
*Thin Solid Films* **234**, 522 (1993).

817. Optical Investigations of Room Temperature Chain Ordering in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 J. Kircher, M. Cardona, A. Zibold, K. Widder, and H.P. Geserich  
*Phys. Rev. B* **48**, 9684 (1993).
818. Calculated Band Structure of Zincblende-Type SnGe  
 T. Brudevoll, D.S. Citrin, N.E. Christensen, and M. Cardona  
*Phys. Rev. B* **48**, 17 128 (1993).
819. Homogeneous-Linewidth-Dependence of Resonant Raman Scattering in GaAs Quantum Wells  
 A.J. Shields, G.O. Smith, E.J. Mayer, R. Eccleston, J. Kuhl, M. Cardona, and K. Ploog  
*Phys. Rev. B* **48**, 17338 (1993).
820. Magneto-Polaron Effect in One-Phonon Resonant Raman Scattering from Bulk Semiconductors: Deformation Potential  
 V.I. Belitsky, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **48**, 17861 (1993).
821. Polar Optical Oscillation Modes in GaAs-Based Double Heterostructures: Long Wavelength Limit  
 F. Comas, R. Pérez-Alvarez, C. Trallero-Giner, and M. Cardona  
*Superlattices and Microstructures* **14**, 95 (1993).
822. Resonant Interference Effects in the Phonon Raman Spectra of (311) GaAs/AlAs Superlattices  
 A.J. Shields, Z.V. Popović, M. Cardona, J. Spitzer, R. Nötzel, and K. Ploog  
*Phys. Rev. B* **49**, 7584 (1994).
823. Phonon Properties of (311) GaAs/AlAs Superlattices  
 Z.V. Popović, E. Richter, J. Spitzer, M. Cardona, A.J. Shields, R. Nötzel, and K. Ploog  
*Phys. Rev. B* **49**, 7577 (1994).
824. Effects of Pressure on the Optical Absorption and Photoluminescence of Wöhler Siloxene  
 S. Ernst, M. Rosenbauer, U. Schwarz, P. Deák, K. Syassen, M. Stutzmann, and M. Cardona  
*Phys. Rev. B* **49**, 5362 (1994).
825. Folded Acoustic Phonons in GaAs/AlAs Superlattices Grown on Non-(100)-Oriented Surfaces  
 J. Spitzer, Z.V. Popović, T. Ruf, M. Cardona, R. Nötzel, and K. Ploog  
*Solid State Electronics* **37**, 753 (1994).
826. Energy Dependence of the Polarization of Hot Photoluminescence in MQW Structures  
 D.N. Mirlin, V.F. Sapega, A.A. Sirenko, M. Cardona, and K. Ploog  
*Physics and Technics of Semiconductors* **27**, 990 (1993).
827. Far-IR Spectroscopic Ellipsometer  
 K.-L. Barth, D. Böhme, K. Kamarás, F. Keilmann, and M. Cardona  
*Thin Solid Films* **234**, 314 (1993).
828. Isotopic-Disorder Induced Raman Scattering in Diamond  
 J. Spitzer, P. Etchegoin, M. Cardona, T.R. Anthony, and W.F. Banholzer  
*Solid State Commun.* **88**, 509 (1993).
829. Comment on: Observation of Spin Precession in GaAs Inversion Layers Using Antilocationizations, by P.D. Dresselhaus, C.M.A. Papavassiliou, and R.G. Wheeler, *Phys. Rev. Lett.* **68**, 106 (1992)  
 P.V. Santos and M. Cardona, *Phys. Rev. Lett.* **72**, 432 (1994).

830. Theory of Disorder-Induced Acoustic Phonon Raman Scattering in Quantum Wells and Superlattices  
 V.I. Belitsky, T. Ruf, J. Spitzer, and M. Cardona  
*Phys. Rev. B* **49**, 8263 (1994).
831. Magneto-Polaron Effect in One-Phonon Resonant Raman Scattering from Bulk Semiconductors: Fröhlich Interaction  
 V.I. Belitsky, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **49**, 11016 (1994).
832. Resonant Raman Lineshape of Optical Phonons in GaAs/AlAs Multiple Quantum Wells  
 A.J. Shields, M. Cardona, and K. Eberl  
*Phys. Rev. Lett.* **72**, 412 (1994).
833. Infrared-Active Vibrations of High-Temperature Superconductors: Experiment and Theory  
 A.P. Litvinchuk, C. Thomsen, and M. Cardona  
*Physical Properties of High Temperature Superconductors IV* ed. by D.M. Ginsberg (World Scientific, Singapore, 1994) p. 375.
834. Excitonic Model for Second-Order Resonant Raman Scattering  
 A. García-Cristóbal, A. Cantarero, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **49**, 13430 (1994).
835. Study of Exciton Dephasing in Superlattices using Resonant Raman Spectroscopy  
 A.J. Shields and M. Cardona  
 in "Coherent Optical Interactions in Semiconductors" ed. by R.T. Phillips, NATO ASI Series B: Physics Vol. 330, p. 313 (1993).
836. Far-infrared Response of Free Carriers in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  from Ellipsometric Measurements  
 J. Humlíček, C. Thomsen, M. Cardona, K. Kamarás, M. Reedyk, M.K. Kelly, and P. Berberich  
*Physica C* **222**, 166 (1994).
837. Raman Scattering by Optical Phonons in Isotopic  $^{70}(\text{Ge})_n$   $^{74}(\text{Ge})_n$  Superlattices  
 J. Spitzer, T. Ruf, M. Cardona, W. Dondl, R. Schorer, G. Abstreiter, E.E. Haller  
*Phys. Rev. Lett.* **72**, 1561 (1994).
838. Polar Optical Vibrational Modes in Quantum Dots  
 E. Roca, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **49**, 13704 (1994).
839. Interface Roughness and Homogeneous Linewidths in Quantum Wells and Superlattices Studied by Resonant Acoustic Phonon Raman Scattering  
 T. Ruf, J. Spitzer, V.F. Sapega, V.I. Belitsky, M. Cardona, and K. Ploog  
*Phys. Rev. B* **50**, 1792 (1994).
840. Anisotropy Effects on Optical Phonon Modes in GaAs/AlAs Quantum Wells  
 M.P. Chamberlain, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **50**, 1611 (1994).
841. Homogeneous Linewidths in Superlattices Studied by Resonant Acoustic Phonon Raman Scattering  
 T. Ruf, J. Spitzer, M. Cardona, and K. Ploog  
 Proceed. 14th Int. Conf. on Raman Scattering, Hong Kong (1994), p. 364.
842. Raman Observation of  $A_{1g}$  and  $B_{1g}$  Symmetry Phonons in  $\text{HgBa}_2\text{Ca}_2\text{Cu}_3\text{O}_{8+\delta}$   
 M.C. Krantz, M. Cardona, A. Schilling, and H.R. Ott  
 Proceed. 14th Int. Conf. on Raman Scattering, Hong Kong (1994), p. 758.

843. Isotopic Effects in the Raman Scattering of Diamond and Germanium  
M. Cardona, Proceed. 14th Int. Conf. on Raman Scattering, Hong Kong (1994), p. 19.
844. Raman Active Phonons and Mode Softening in Superconducting  $HgBa_2CuO_{4+\delta}$   
M.C. Krantz, C. Thomsen, Hj. Mattausch, and M. Cardona  
Phys. Rev. B **50**, 1165 (1994).
845. Magneto-Raman Scattering in GaAs/AlAs Multiple Quantum Wells  
A. Cros, T. Ruf, J. Spitzer, M. Cardona, and A. Cantarero  
Phys. Rev. B **50**, 2325 (1994).
846. Phonon Properties of (211) Oriented  $(GaAs)_m/(AlAs)_n$  Superlattices  
Z.V. Popović, E. Richter, J. Spitzer, M. Cardona, R. Nötzel, and K. Ploog  
Superlattices and Microstructures **14**, 173 (1994).
847. Dielectric Function and Critical Points of Cubic and Hexagonal CdSe  
C. Janowitz, O. Günther, G. Jungk, R.L. Johnson, P.V. Santos, M. Cardona, W. Faschinger, and H. Sitter  
Phys. Rev. B **50**, 2181 (1994).
848. Intervalley Scattering Potentials of Ge from Direct Exciton Absorption under Pressure  
G.H. Li, A.R. Goñi, K. Syassen, and M. Cardona, Phys. Rev. B **49**, 8017 (1994).
849. Doping Dependence of the  $E_1$  and  $E_1 + \Delta_1$  Critical Points in Highly-Doped n- and p-type GaAs: Importance of Surface Band Bending and Depletion  
M. Kuball, M.K. Kelly, M. Cardona, K. Köhler, and J. Wagner  
Phys. Rev. B **49**, 16569 (1994).
850. Comment on “Electronic Raman Scattering in High- $T_c$  Superconductors: A Probe of  $d_{x^2-y^2}$  Pairing”  
M.C. Krantz and M. Cardona  
Phys. Rev. Lett. **72**, 3290 (1994).
851. Two-Phonon Resonant Magneto-Raman Scattering from Direct Gap Semiconductors  
V.I. Belitsky, A. Cantarero, T. Ruf, and M. Cardona  
Phys. Rev. B **50**, 7413 (1994).
852. Mid- and Near-IR Ellipsometry of  $Y_{1-x}Pr_xBa_2O_7$  Epitaxial Films  
J. Humlíček, K. Kamarás, J. Kircher, H.-U. Habermeier, M. Cardona, A. Röseler, and J.-L. Stehlé  
Thin Solid Films **234**, 518 (1993).
853. Optical Anisotropy in InAs/AlSb Superlattices  
P.V. Santos, P. Etchegoin, M. Cardona, B. Brar, and H. Kroemer  
Phys Rev. B 50, 8746 (1994).
854. Resonant Raman Scattering due to Bound-Carrier Spin-Flip in  $GaAs/Al_xGa_{1-x}As$  Quantum Wells  
V.F. Sapega, T. Ruf, M. Cardona, K. Ploog, E.L. Ivchenko, and D.N. Mirlin  
Phys. Rev. B **50**, 2510 (1994).
855. Raman Studies of Interface Properties in Semiconductor Quantum Wells and Superlattices  
T. Ruf, J. Spitzer, V.F. Sapega, V.I. Belitsky, M. Cardona, and K. Ploog, Physica Scripta T **55**, 45 (1994).

856. Influence of the Interface Composition of InAs/AlSb Superlattices on their Optical and Structural Properties  
 J. Spitzer, A. Höpner, M. Kuball, M. Cardona, B. Jenichen, H. Neuroth, B. Brar, and H. Kroemer  
*J. Appl. Phys.* **77**, 811 (1995).
857. Raman Scattering by Acoustic Phonons in Semiconductor Superlattices  
 T. Ruf, J. Spitzer, V.F. Sapega, V.I. Belitsky, M. Cardona, K. Ploog  
*Festkörperprobleme/Advances in Solid State Physics*, **34**, ed. by R. Helbig (Vieweg, Braunschweig/Wiesbaden, 1994), p. 237.
858. Infrared-Active Phonons and the Superconducting Gap of  $T_c$ -Reduced Double-Chain  $\text{YBa}_2\text{Cu}_4\text{O}_8$  Superconductors  
 A.P. Litvinchuk, C. Thomsen, M. Cardona, L. Börjesson, P. Berastegui and L.-G. Johansson  
*Phys. Rev. B* **50**, 1171 (1994).
859. Electronic Raman Scattering in Single Domain  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ ,  $k$ -Space Anisotropy and Comparison to LDA Fermi Surface Masses  
 M.C. Krantz, I.I. Mazin, and M. Cardona  
*Physica C* **235-240**, 1101 (1994).
860. Electronic Raman Scattering and Phonon Self-Energy Effects in Osmium  
 Yu.S. Ponosov, C. Thomsen, and M. Cardona  
*Physica C* **235-240**, 1153 (1994).
- 860a k-Dependence of  $E_{2g}$  Phonon Self-Energies in Re and Os  
 Yu.S. Ponosov, C. Thomsen, and M. Cardona  
 Proceed. 14th Int. Conf. on Raman Spectroscopy, 22-26 August 1994, Hong Kong, ed. by N.-T. Yu and X.-Y. Li (John Wiley & Sons, Chichester, UK, 1994), p. 770.
861. Semiconductor Crystals with Tailor-Made Isotopic Compositions  
 M. Cardona  
*Festkörperprobleme/Advances in Solid State Physics* **34**, ed. by R. Helbig (Vieweg, Braunschweig/Wiesbaden, 1994), p. 35
862. Hydrogen Adsorption on GaAs(110) – A Study of the Surface Optical Properties  
 M. Kuball, M.K. Kelly, P.V. Santos, and M. Cardona  
*Phys. Rev. B* **50**, 8609 (1994).
863. Forbidden Fröhlich-Interaction-Induced 2-LO Raman Scattering in  $\text{Pb}_2\text{Sr}_2\text{RCu}_3\text{O}_8$  (R = Rare Earth Element)  
 M. Reedyk, C. Thomsen, M. Cardona, J.S. Xue, and J.E. Greidan  
*Physica C* **235-240**, 1165 (1994).
864. Observation of the Effects of Phonon Dispersion on the Fröhlich-Interaction Induced Second-Order Raman Scattering in  $\text{Pb}_2\text{Sr}_2\text{PrCu}_3\text{O}_8$   
 M. Reedyk, C. Thomsen, M. Cardona, J.S. Xue, and J.E. Greidan  
*Phys. Rev. B* **50**, 13762 (1994).
865. Linear Terms in  $\vec{q}$  in the Macroscopic Optical Properties of Zincblende-Type Materials: Theory and Experiment  
 P. Etchegoin, A. Fainstein, P.V. Santos, L.C. Lew Yan Voon, and M. Cardona  
*Solid State Commun.* **92**, 505 (1994).

- 865a. Optical Properties and Temperature Dependence of the Interband Transitions of Cubic and Hexagonal GaN  
 S. Logothetidis, J. Petalas, M. Cardona, and T.D. Moustakas  
*Phys. Rev. B* **50**, 18017 (1994).
866. Normal State Electronic Raman Scattering Efficiencies of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ ,  $\text{Bi}_2\text{Sr}_2\text{Ca}_1\text{Cu}2\text{O}_8$  and  $\text{Tl}_2\text{Ba}_2\text{Ca}_2\text{Cu}_3\text{O}_{10}$ , Effects of LDA Fermi Surface Mass Fluctuations  
 M.C. Krantz, I.I. Mazin, D.H. Leach, W.Y. Lee, and M. Cardona  
*Phys. Rev. B* **51**, 5949 (1995).
867. Magneto-Raman Scattering by Optic and Acoustic Phonons in Quantum Wells  
 T. Ruf, A. Cros, J. Spitzer, G. Goldoni, and M. Cardona  
 Proc. of the 11th Int. Conf. on High Magn. Fields in Semic. Phys., Boston, 1994 ed. D. Heiman (World Scientific, Singapore, 1995), p. 350.
868. Resonant Magneto-Polarons in InP  
 F. Iikawa, T. Ruf, and M. Cardona  
 Proc. of the 11th Int. Conf. on High Magn. Fields in Semic. Phys., Boston, 1994 ed. D. Heiman (World Scientific, Singapore, 1995), p. 690.
869. Symmetry-Dependent Phonon Interactions in  $\text{YBa}_2\text{Cu}_4\text{O}_8$  Superconductors: a Raman and Infrared Spectroscopic Study  
 A.P. Litvinchuk, M. Käll, L. Börjesson, C. Thomsen, M. Cardona, P. Berastegui, and L.-G. Johansson  
*Physica C* **235-240**, 1091 (1994).
870. Far-Infrared Ellipsometry of Electrons and Phonons in  $\text{La}_{1.87}\text{Sr}_{0.13}\text{CuO}_4$   
 R. Henn, J. Kircher, M. Cardona, A.M. Garrits, A. Wittlin, A.V.H.M. Dujin, and A.A. Menovsky  
*Physica C* **235-240**, 1195 (1994).
871. LMTO and  $\vec{k} \cdot \vec{p}$  Calculations of Effective Masses and Band Structure of Semiconducting Diamond  
 M. Willatzen, M. Cardona, and N.E. Christensen  
*Phys. Rev. B* **50**, 18054 (1994).
872. Comment on “Upper-Conduction-Band Effects in Heavily Strained Low-Dimensional Zinc-Blende Semiconductor Systems”  
 M. Cardona  
*Phys. Rev. B* **51**, 7928 (1995).
873. In-Plane Birefringence of GaAs/AlAs Waveguided Multiple Quantum Wells  
 A. Fainstein, P. Etchegoin, P.V. Santos, M. Cardona, K. Tötemeyer, and K. Eberl  
*Phys. Rev. B* **50**, 11850 (1994).
874. Geminate Recombination in Multiple Quantum Wells  
 V.I. Belitsky, T. Ruf, J. Spitzer, and M. Cardona  
*J. of Luminescence* **60&61**, 340 (1994).
875. New Interpretation of Raman Scattering Experiments from Phonons in GaAs/AlAs Superlattices  
 M.P. Chamberlain, M. Cardona, and A.J. Shields  
 ICPS'22, Vancouver, Aug. 1994, The Physics of Semiconductors (World Scientific, Singapore, 1995), p. 907.

876. Vibrational Properties of Isotopic  $^{70}\text{Ge}_n$   $^{74}\text{Ge}_n$  Superlattices  
 J. Spitzer, T. Ruf, M. Cardona, C. Grein, W. Dondl, R. Schorer, G. Abstreiter, E.E. Haller  
 ICPS'22, Vancouver, 1994, The Physics of Semiconductors (World Scientific, Singapore, 1995), p. 971.
877. Characterization of GaAs/AlAs Superlattices and Quantum Wells by Resonant Acoustic Phonon Raman Scattering  
 T. Ruf, J. Spitzer, M. Cardona, W. Braun, and K. Ploog  
 ICPS'22, Vancouver, 1994, The Physics of Semiconductors (World Scientific, Singapore, 1995), p. 923.
878. Surface Influence on the Doping Dependence of the  $E_1$  and  $E_1 + \Delta_1$  Critical Points of GaAs: Electric Field and Impurity Unscreening Effect  
 M. Kuball, M.K. Kelly, P.V. Santos, M. Cardona, K. Köhler, and J. Wagner  
 ICPS'22, Vancouver, 1994, The Physics of Semiconductors (World Scientific, Singapore, 1995), p. 153.
879. Raman Study of Kramers Doublets in  $\text{Nd}_2\text{CuO}_4$   
 P. Dufour, S. Jandl, C. Thomsen, M. Cardona, B.M. Wanklyn, and C. Changkang  
*Phys. Rev. B* **51**, 1053 (1995).
880. Raman Scattering by Phonons in Structured Semiconductors  
 M. Cardona  
 ICPS'22, Vancouver, 1994 The Physics of Semiconductors (World Scientific, Singapore, 1995), p. 3.
881. Reflection Anisotropies in InAs/AlSb Superlattices  
 P.V. Santos, P. Etchegoin, M. Cardona, B. Brar, and H. Kroemer  
 ICPS'22, Vancouver, 1994 The Physics of Semiconductors (World Scientific, Singapore, 1995), p. 1225.
882. Tight-Binding Calculation of Spin-Splittings in Semiconductors Superlattices  
 P.V. Santos, M. Willatzen, M. Cardona, and A. Cantarero  
*Phys. Rev. B* **51**, 5121 (1995).
883. Raman Study of the Copper Isotope Effect in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 T. Strach, T. Ruf, E. Schönherr, and M. Cardona  
*Phys. Rev. B* **51**, 16460 (1995).
884. SnTe-Doping of GaAs Grown by Atomic Layer Molecular Beam Epitaxy  
 M. Kuball, M. Cardona, A. Mazuelas, K.H. Ploog, J.J. Pérez-Camacho, J.P. Silveira, and F. Briones  
*J. Appl. Phys.* **77**, 4339 (1995).
885. Theory of One-Phonon Raman Scattering in Semiconductor Microcrystallites  
 M.P. Chamberlain, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **51**, 1680 (1995).
886. Influence of Hydrogen Adsorption on the Optical Properties of the GaAs(100)-c(4×4) Surface  
 M. Arens, M. Kuball, N. Esser, W. Richter, M. Cardona, and B.O. Fimland  
*Phys. Rev. B* **51**, 10923 (1995).
887. Raman Scattering by Electronic Excitations in Semiconductors and in High  $T_c$  Superconductors  
 M. Krantz and M. Cardona  
*J. of Low Temp. Physics* **99**, 205 (1995).

888. Electronic and Acoustic-Phonon Inter-Landau-Level Raman Scattering in GaAs/Al<sub>x</sub>Ga<sub>1-x</sub>As Multiple Quantum Wells  
 A. Fainstein, T. Ruf, M. Cardona, V.I. Belitsky, and A. Cantarero  
*Phys. Rev. B* **51**, 7064 (1995).
889. Raman Scattering due to *Interface* Optical Phonons in GaAs/AlAs Multiple Quantum Wells  
 A.J. Shields, M.P. Chamberlain, M. Cardona, and K. Eberl  
*Phys. Rev. B* **51**, 17728 (1995).
890. Raman Scattering in Semiconductors with Reduced Translational Invariance  
 M. Cardona  
 in *Quantum Theory of Real Materials*, ed. by J.R. Chelikowsky and S.G. Louis (Kluwer Acad. Publ., Boston, 1996) p. 141.
891. Comment to “Observation of Time-Nonreversible Optical Interaction with Zinc-Blende Semiconductors”  
 L.C. Lew Yan Voon, A. Fainstein, P. Etchegoin, P. Santos, and M. Cardona  
*Phys. Rev. B* **52**, 2201 (1995).
892. Magneto-Optical Study of Quantum Well Electronic Structure Using Disorder-Induced Resonant Acoustic-Phonon Raman Scattering  
 G. Goldoni, T. Ruf, V.F. Sapega, A. Fainstein, and M. Cardona  
*Phys. Rev. B* **51**, 14542 (1995).
893. Electric-Field-Induced Raman Scattering in GaAs: Franz-Keldysh Oscillations  
 M. Kuball, N. Esser, T. Ruf, C. Ulrich, M. Cardona, K. Eberl, A. Garcia-Cristobal, and A. Cantarero  
*Phys. Rev. B* **51**, 7353 (1995).
894. Spatial Correlation of Laser-Generated Electrons and Holes in Quantum Wells  
 V.I. Belitsky, A. Cantarero, S.T. Pavlov, M. Cardona, L.I. Korovin and I.G. Lang  
*Phys. Stat. Sol. (b)* **188**, 863 (1995).
895. Electronic Raman Scattering in YBa<sub>2</sub>Cu<sub>4</sub>O<sub>8</sub>  
 S. Donovan, J. Kircher, J. Karpinski, E. Kaldis, and M. Cardona  
*J. Supercond.* **8**, 417 (1995).
896. Selection Rules and Dispersion of GaAs/AlAs Multiple Quantum Well Optical Phonons Studied by Raman Scattering in Right Angle, Forward and Backscattering *In-Plane* Geometries  
 A. Fainstein, P. Etchegoin, M.P. Chamberlain, M. Cardona, K. Tötemeyer and K. Eberl  
*Phys. Rev. B* **51**, 14448 (1995).
897. Relativistic Electronic Structure, Effective Masses, and Inversion-Asymmetry Effects of Cubic Silicon Carbide (3C-SiC)  
 M. Willatzen, M. Cardona, and N.E. Christensen  
*Phys. Rev. B* **51**, 13150 (1995).
898. Microscopic Structure of the GaAs(001)-(6×6) Surface Derived from Scanning-Tunneling-Microscopy  
 M. Kuball, D.T. Wang, N. Esser, M. Cardona, J. Zegenhagen, and B.O. Fimland  
*Phys. Rev. B* **51**, 13880 (1995).
899. Spin-Orbit Coupling Parameters and Electron *g*-Factor of II-VI Zinc-Blende Materials  
 M. Willatzen, M. Cardona, and N.E. Christensen  
*Phys. Rev. B* **51**, 17992 (1995).

900. Comment on “Multiband Coupling Effects on Electron Quantum Well Intersubband Transition”  
 L.C. Lew Yan Voon, M. Willatzen, M. Cardona, and L.R. Ram-Mohan  
*J. Appl. Phys.* **80**, 600 (1996).
901. LO-Phonon-Plasmon Modes in n-GaAs and n-InP under Pressure  
 S. Ernst, A.R. Goñi, K. Syassen and M. Cardona  
*J. Phys. Chem. Solids* **56**, 567 (1995).
902. Optical Properties of (311)-Oriented GaAs/AlAs Superlattices  
 P.V. Santos, A. Cantarero, M. Cardona, R. Nötzel, and K. Ploog  
*Phys. Rev. B* **52**, 1970 (1995).
903. The Low-Temperature Infrared Optical Functions of SrTiO<sub>3</sub> Determined by Reflectance Spectroscopy and Spectroscopic Ellipsometry  
 K. Kamarás, K.-L. Barth, F. Keilmann, R. Henn, M. Reedyk, C. Thomsen, M. Cardona, J. Kircher, P.L. Richards, and J.-L. Stehlé  
*J. of Appl. Phys.* **78**, 1235 (1995).
904. Theoretical Study of Band-Edge States in Sn<sub>1</sub>Ge<sub>n</sub> Strained-Layer Superlattices  
 M. Willatzen, L.C. Lew Yan Voon, P.V. Santos, M. Cardona, N.E. Christensen  
*Phys. Rev. B* **52**, 5070 (1995).
905. Hydrogen-Induced Modification of the Optical Properties of the GaAs(100) Surface  
 N. Esser, P.V. Santos, M. Kuball, M. Cardona, M. Arens, D. Pahlke, W. Richter, F. Stietz, J.A. Schäfter, and B.O. Fimland  
*J. Vac. Sci. Technol. B* **13**(4) 1666 (1995).
906. Far Infrared Ellipsometry using Synchrotron Radiation  
 J. Kircher, R. Henn, M. Cardona, P.L. Richards, and G.P. Williams  
*J. of Opt. Soc.* **14**, 705 (1997).
907. Raman Investigation of YBa<sub>2-x</sub>La<sub>x</sub>Cu<sub>3</sub>O<sub>7</sub>-Ceramics  
 R. Wegerer, C. Thomsen, M. Cardona, H.J. Bornemann, and D.E. Morris  
*Phys. Rev. B* **53**, 3561 (1996).
908. Investigation of Inversion-Asymmetry Effects on the Band Structure of Sn<sub>1</sub>Ge<sub>n</sub> Superlattices  
 L.C. Lew Yan Voon, M. Willatzen, P.V. Santos, M. Cardona, D. Munzar, and N.E. Christensen  
*Solid State Electron.* **40**, 191 (1996).
909. Raman Study of Crystal-Field Excitations in Reduced Nd<sub>2</sub>CuO<sub>4</sub>  
 S. Jandl, P. Dufour, T. Strach, T. Ruf, M. Cardona, V. Nekvasil, C. Changkang, and B.M. Wanklyn  
*Phys. Rev. B* **52**, 15558 (1995).
910. Optical Properties of Sb-terminated GaAs and InP (110) Surfaces  
 P.V. Santos, N. Esser, M. Cardona, W.G. Schmidt, and F. Bechstedt  
*Phys. Rev. B* **52**, 12158 (1995).
911. Surface Ordering on GaAs(100) by Indium-Termination  
 U. Resch-Esser, N. Esser, C. Springer, J. Zegenhagen, W. Richter, M. Cardona, and B.O. Fimland  
*J. Vac. Sci. Technol. B* **13**(4), 1672 (1995).
912. Hydrogen Adsorption on the GaAs(001)-(2×4) Surface: a Scanning Tunneling Microscopic Study  
 M. Kuball, D.T. Wang, N. Esser, M. Cardona, J. Zegenhagen, and B.O. Fimland  
*Phys. Rev. B* **52**, 16337 (1995).

- 912a Epitaxy of Sn on Si(111)  
 D.T. Wang, N. Esser, M. Cardona, and J. Zegenhagen  
*Surface Science* **343**, 31 (1995).
913. Optical Phonon Emission in GaAs/AlAs MQW's Determined by Hot-Electron Luminescence  
 V.F. Sapega, M.P. Chamberlain, T. Ruf, M. Cardona, D.N. Mirlin, K. Tötemayer, A. Fischer and K. Eberl  
*Phys. Rev. B* **52**, 14144 (1995).
914. Far-Infrared c-Axis Response of  $\text{La}_{1.87}\text{Sr}_{0.13}\text{CuO}_4$  Determined by Ellipsometry  
 R. Henn, J. Kircher, M. Cardona, A. Wittlin, V.H.M. Duijn, and A.A. Menovsky  
*Phys. Rev. B* **53**, 9353 (1996).
915. Hydrogen Interaction with Sb-terminated GaAs and InP (110) Surfaces  
 P.V. Santos, N. Esser, J. Groenen, M. Cardona, W.G. Schmidt, and F. Bechstedt  
*Phys. Rev. B* **52**, 17379 (1995).
916. Surface Morphology and In-plane-epitaxy of  $\text{SmBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Films on  $\text{SrTiO}_3(001)$  Substrates Studied by STM and Grazing Incidence X-ray Diffraction  
 Q.D. Jiang, D.-M. Smilgies, R. Feidenhans'l, M. Cardona, and J. Zegenhagen  
*Solid State Commun.* **98**, 157 (1996).
917. *In Situ* Preparation of Atomically Flat  $\text{SrTiO}_3(001)$  Surface for High  $T_c$  Thin Film Epitaxy  
 Q.D. Jiang, D.-M. Smilgies, R. Feidenhans'l, M. Cardona, and J. Zegenhagen  
 2nd European Conference on Applied Superconductivity (3-7 July 1995, Edinburgh, UK),  
*Inst. Phys. Conf. Ser.* **148**, 939 (1995).
918. Terms Linear in  $\mathbf{k}$  in the Band Structure of Wurtzite-Type Semiconductors  
 L.C. Lew Yan Voon, M. Willatzen, M. Cardona, and N.E. Christensen  
*Phys. Rev. B* **53**, 10703 (1996).
919. On the Strain-Induced Shifts of the Infrared-Active Phonon of Cubic Boron Nitride  
 M. Cardona and E. Anastassakis  
*Phys. Rev. B* **54**, 14888 (1996).
920. Resonant Acoustic-Phonon Raman Scattering in Magnetic and Electric Fields  
 T. Ruf, V.F. Sapega, and M. Cardona  
*J. of Raman Spectroscopy* **27**, 271 (1996).
921. A Quantitative Study of the Piezo-optical Activity in GaAs  
 B. Koopmans, P. Etchegoin, P. Santos, and M. Cardona  
*Solid State Commun.* **97**, 261 (1996).
922. Optics of MQW's Uniaxially Stressed Along the Growth Axis  
 P. Etchegoin, A. Fainstein, A.A. Sirenko, B. Koopmans, B. Richards, P.V. Santos, M. Cardona, K. Tötemeyer, and K. Eberl  
*Phys. Rev. B* **53**, 13662 (1996).
923. Piezogyrotropy in Zincblende Semiconductors  
 B. Koopmans, P. Santos, and M. Cardona  
 Highlights of Light Spectroscopy on Semiconductors, HOLOS 95, ed. by A. D'Andrea, L.G. Quagliano, and S. Selci (World Scientific Publisher, Singapore, 1996), p. 25.
924. Inversion Asymmetry Splitting of the Electronic Bands and Optical Properties of Semiconductors  
 M. Cardona  
 Highlights of Light Spectroscopy on Semiconductors, HOLOS 95, ed. by A. D'Andrea, L.G. Quagliano, and S. Selci (World Scientific Publisher, Singapore, 1996), p. 3.

925. Isotope Effects on the Raman Spectra of CuCl  
 A. Göbel, T. Ruf, M. Cardona and C.T. Lin  
 Proceed. of PHONONS'95, *Physica B* **219& 220**, 511 (1996).
926. Direct Scanning Tunneling Microscopy Observation of Non-Unit-Cell Growth of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Thin Films  
 T. Haage, Q.D. Jiang, M. Cardona, H.-U. Habermeier, and J. Zegenhagen  
*Appl. Phys. Lett.* **68**, 2427 (1996).
927. Raman Study of Intermultiplet Crystal-Field Excitations in  $\text{Nd}_2\text{CuO}_4$   
 S. Jandl, P. Dufour, T. Strach, T. Ruf, M. Cardona, V. Nekvasil, C. Chen and B.M. Wanklyn  
*Phys. Rev. B* **52**, 15558 (1995).
928. First-Order Resonant Raman Scattering under an Electric Field  
 A. García-Cristóbal, M. Kuball, M. Cardona, and A. Cantarero  
*Phys. Rev. B* **54**, 11492 (1996).
929. Raman Study of Crystal-Field Excitations in  $\text{Nd}_{1.85}\text{Ce}_{0.15}\text{CuO}_4$   
 S. Jandl, P. Dufour, T. Strach, T. Ruf, M. Cardona, V. Nekvasil, C. Chen, B.M. Wanklyn, and  
 S. Piñol  
*Phys. Rev. B* **53**, 8632 (1996).
930. Substrate-Mediated Anisotropy of Transport Properties in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Thin Films  
 T. Haage, J.Q. Li, B. Leibold, M. Cardona, J. Zegenhagen, H.-U. Habermeier, A. Forkl, Ch.  
 Jooß, R. Warthmann, and H. Kronmüller  
*Solid State Commun.* **99**, 553 (1996).
931. Raman Study of Intermultiplet Crystal-Field Transitions in  $\text{Sm}_2\text{CuO}_4$   
 T. Strach, T. Ruf, M. Cardona, C.T. Lin, S. Jandl, V. Nekvasil, D.I. Zhigunov, S.N. Barilo, and  
 S.V. Shiryaev  
*Phys. Rev. B* **54**, 4276 (1996).
932. Electron-Phonon Interaction at the Direct Gap of the Copper Halides  
 N. Garro, A. Cantarero, M. Cardona, T. Ruf, A. Göbel, C. Lin, K. Reimann, S. Rübenacke,  
 and M. Steube  
*Solid State Commun.* **98**, 27 (1996).
933. Ga Self-Diffusion in GaAs Isotope Heterostructures  
 L. Wang, L. Hsu, E.E. Haller, J.W. Erickson, A. Fischer, K. Eberl, and M. Cardona  
*Phys. Rev. Lett.* **76**, 2342 (1996).
934. Transformations of the Local Structure of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  due to Laser-Annealing-Induced  
 Changes in the Oxygen Content  
 M.N. Iliev, H.-U. Habermeier, M. Cardona, V.G. Hadjiev, and R. Gajic  
*Physica C* **279**, 63 (1997).
935. Raman Spectra of Hg-Based Superconductors: Effect of Oxygen Defect  
 X.J. Zhou, M. Cardona, C.W. Chu, Q.M. Lin, S.M. Loureiro, and M. Marezio  
*Phys. Rev. B* **54**, 6137 (1996).
936. Raman Scattering in High  $T_c$  Superconductors: Electronic Excitations  
 M. Cardona, T. Strohm, J. Kircher  
 in *Spectroscopic Studies of Superconductors*, edited by I. Bozovic and D. van der Marel, Proc.  
 SPIE 2696, 182 (1996).

937. Raman Spectroscopy: Phonons  
 M. Cardona, X.J. Zhou, T. Strach  
 Proceedings of the 10th Anniversary HTS Workshop on Physics, Materials and Applications,  
 ed. by B. Batlogg, C.W. Chu, W.K. Chu, D.U. Gubser, and K.A. Müller (World Scientific,  
 Singapore, 1996), p. 72.
938. *Fundamentals of Semiconductors, Physics and Materials Properties*  
 Peter Y. Yu and Manuel Cardona  
 Springer Verlag (Berlin, Heidelberg, New York, 1996); second edition (1999), third edition  
 (2003).
939. Comparison of Bond Character in Hydrocarbons and Fullerenes  
 D.W. Snoke, M. Cardona, S. Sanguinetti, G. Benedek  
*Phys. Rev. B* **53**, 12641 (1996).
940. Raman Spectra of Ultra-Thin  $\text{YBaCuO}_{7-\delta}$  Films  
 P. Zhang, T. Haage, H.-U. Habermeier, T. Ruf, and M. Cardona  
*Appl. Phys. Lett.* **80**, 2935 (1996).
941. In-Plane Optical Anisotropy of GaAs/AlAs Multiple Quantum Wells Probed by Microscopic Reflectance Difference Spectroscopy  
 B. Koopmans, B. Richards, P. Santos, K. Eberl, and M. Cardona  
*Appl. Phys. Lett.* **69**, 782 (1996).
942. Dependence of the Lattice Parameters and the Energy Gap of Zincblende-Type Semiconductors on Isotopic Masses  
 N. Garro, A. Cantarero, M. Cardona, A. Göbel, T. Ruf, and K. Eberl  
*Phys. Rev. B* **54**, 4732 (1996).
- 942a Dependence of the Energy Gap of GaAs on the Isotopic Mass of Ga  
 N. Garro, A. Cantarero, M. Cardona, A. Göbel, T. Ruf and K. Eberl  
 in "Highlights of Light Spectroscopy on Semiconductors", edited by A. D'Andrea, L.G. Quagliano and S. Selei, (World Scientific Publ., Singapore, 1996), pp. 21-24.
943. Plasmon Raman Scattering and Photoluminescence of Heavily Doped *n*-Type InP near the  $\Gamma$ -X Crossover  
 S. Ernst, A.R. Goñi, K. Syassen, and M. Cardona  
*Phys. Rev. B* **53**, 1287 (1996).
944. Von Federn und Massen: Physik isotopenreiner Halbleiter  
 T. Ruf, H.D. Fuchs, and M. Cardona  
*Physikalische Blätter* **52**, 1115 (1996).
945. Isotopic Effects on the Lattice Constant in Compound Semiconductors by Perturbation Theory: An *ab initio* Calculation  
 A. Debernardi and M. Cardona  
*Phys. Rev. B* **54**, 11305 (1996).
946. Comment on "Ground State Structural Anomalies in Cuprous Halides: CuCl"  
 A. Göbel, T. Ruf, M. Cardona, C.T. Lin, and J.C. Merle  
*Phys. Rev. Lett.* **77**, 2591 (1996).
947. Interplane Optical Conductivity of  $\text{YBa}_2\text{Cu}_3\text{O}_7$  I: Normal State – a Luttinger Liquid?  
 J. Kircher, C. Lin, R. Henn, and M. Cardona

948. *c*-Polarized Vibrational Modes in  $\text{La}_2\text{CuO}_4$  and  $\text{La}_{1.87}\text{Sr}_{0.13}\text{CuO}_4$  Determined by Ellipsometry  
 R. Henn, J. Kircher, and M. Cardona  
*Physica C* **269**, 99 (1996).
949. Raman Study of  $\text{HgBa}_2\text{Ca}_{n-1}\text{O}_{2n+2+\delta}$  ( $n = 1, 2, 3, 4$  and  $5$ ) Superconductors  
 Xingjiang Zhou, M. Cardona, C.W. Chu, Q.M. Lin, S.M. Loureiro, and M. Marezio  
*Physica C* **270**, 193 (1996).
- 949a. Raman Study of  $\text{HgBa}_2\text{Ca}_{n-1}\text{O}_{2n+2+\delta}$  ( $n = 1, 2, 3, 4$  and  $5$ ) Superconductors  
 Xingjiang Zhou, M. Cardona, C.W. Chu, Q.M. Lin, S.M. Loureiro, and M. Marezio  
 Proceed. of 10th Anniversary of HTS Workshop on Physics, Materials and Applications,  
 ed. by B. Batlogg, C.W. Chu, W.K. Chu, D.U. Gubser, and K.A. Müller, (World Scientific,  
 Singapore, 1996), p. 369.
950. Resonant Electron-Phonon Coupling: Magneto-Polarons in InP  
 V. López, F. Comas, C. Trallero-Giner, T. Ruf and M. Cardona  
*Phys. Rev. B* **54**, 10502 (1996).
951. Growth of CuCl Single Crystals Composed of Pure Isotopes  
 C.T. Lin, E. Schönherr, A. Schmeding, T. Ruf, A. Göbel, and M. Cardona  
*J. Crystal Growth* **167**, 612 (1996).
952. Outgoing Excitonic Resonance in Multiphonon Raman Scattering from Polar Semiconductors  
 V.I. Belitsky, A. Cantarero, S.T. Pavlov, M. Cardona, I.G. Lang, and A.V. Prokhorov  
*Phys. Rev. B* **52**, 11920 (1995).
953. Far-Infrared Ellipsometry of Depleted Surface Layer in Heavily Doped n-type GaAs  
 J. Humlíček, R. Henn, and M. Cardona  
*Appl. Phys. Lett.* **69**, 2581 (1996).
954. Magnetopolaron-Induced Increase of the Efficiency in Two-LO-Phonon Raman Scattering from Quantum Wells  
 I.G. Lang, V.I. Belitsky, A. Cantarero, L.I. Korovin, S.T. Pavlov, and M. Cardona  
*Phys. Rev. B* **54**, 17768 (1996).
955. Zeeman Study of Electronic Raman Transitions in  $\text{Nd}_2\text{CuO}_4$   
 V. Nekvasil, T. Strach, T. Ruf, M. Cardona, S. Jandl, C. Chen, B. Wanklyn  
*J. Alloys and Compounds* **250**, 619 (1997).
956. Raman Study of Crystals-Field Excitations in  $\text{Pr}_2\text{CuO}_4$   
 S. Jandl, T. Strach, T. Ruf, M. Cardona, V. Nekvasil, M. Iliev, D.I. Zhigunov, S.N. Barilo, S.V. Shiryaev  
*Phys. Rev. B* **56**, 5049 (1997).
957. Polarization of Hot Photoluminescence in Superlattices of GaAs/AlAs  
 V.F. Sapega, V.I. Perel, A.Yu. Dobin, D.N. Mirlin, I.A. Akimov, T. Ruf, M. Cardona, and K. Eberl  
*Pis'ma Zh. Eksp. Teor. Fiz.* **63**, 285 (1996).
958. Spin-Flip Raman Scattering in GaAs/AlAs Multiple Quantum Wells  
 A.A. Sirenko, T. Ruf, K. Eberl, M. Cardona, A.A. Kiselev, E.K. Ivchenko and K. Ploog  
 Proceedings of the 23rd International Conference on the Physics of Semiconductors (Berlin, 1996), ed. M. Scheffler and R. Zimmermann (World Scientific Publ., Singapore, 1996), p. 1385.

959. Isotope Effects in CuCl: Phonons and Electronic Structure  
 T. Ruf, A. Göbel, M. Cardona, C.T. Lin, J. Wrzesinski, M. Steube, K. Reimann, N. Garro, A. Cantarero, J.-C. Merle and M. Joucla  
 Proceedings of the 23rd International Conference on the Physics of Semiconductors (Berlin, 1996), ed. M. Scheffler and R. Zimmermann (World Scientific Publ., Singapore, 1996), p. 185.
960. Anisotropic Dielectric Response of GaAs/AlAs Quantum Wells Studied by Microscopic Reflectance Difference Spectroscopy  
 B. Koopmans, B. Richards, P.V. Santos, and M. Cardona  
 Proceedings of the 23rd International Conference on the Physics of Semiconductors (Berlin, 1996), ed. M. Scheffler and R. Zimmermann (World Scientific Publ., Singapore, 1996), p. 1891.
961. Raman Scattering on Isotopic  $\alpha$ -Sn Alloys  
 D.T. Wang, A. Göbel, J. Zegenhagen, and M. Cardona  
 Proceedings of the 23rd International Conference on the Physics of Semiconductors (Berlin, 1996), ed. M. Scheffler and R. Zimmermann (World Scientific Publ., Singapore, 1996), p. 197.
962. Raman Scattering in the RTiO<sub>3</sub> Family of Mott-Hubbard Insulators  
 M. Reedyk, D.A. Crandles, M. Cardona, J.D. Garrett, J.E. Greedan  
*Phys. Rev. B* **55**, 1442 (1997).
963. Isotope Effects on Phonons in CdS: Determination of  $E_2$ -Eigenvectors  
 J.M. Zhang, T. Ruf, A. Göbel, A. Debernardi, R. Lauck, and M. Cardona  
 Proceedings of the 23rd International Conference on the Physics of Semiconductors (Berlin, 1996), ed. M. Scheffler and R. Zimmermann (World Scientific Publ., Singapore, 1996), p. 201.
964. Phonon Polaritons in Semiconductor Nanostructures  
 C. Trallero-Giner, M. Cardona, and F. Comas  
 Proceedings of the 23rd International Conference on the Physics of Semiconductors (Berlin, 1996), ed. M. Scheffler and R. Zimmermann (World Scientific Publ., Singapore, 1996), p. 241.
965. Spatial Dispersion of the Dielectric Response in Transition Metals: Manifestation in Raman Spectra  
 Yu. S. Ponosov, G.A. Bolotin, C. Thomsen, and M. Cardona  
 Proceedings of the International Conference on Raman Spectroscopy, Pittsburgh (John Wiley, Chichester, 1996), p. 868.
966. Zeeman Study of Raman-Active Crystal-Field Transitions in Nd<sub>2</sub>CuO<sub>4</sub> and Sm<sub>2</sub>CuO<sub>4</sub>  
 T. Strach, T. Ruf, S. Jandl, V. Nekvasil, C. Chen, B.M. Wanklyn, D.I. Zhigunov, S.N. Barilo, and S.V. Shiryaev  
*Phys. Rev. B* **56**, 5578 (1997).
967. Crystal-Field Transitions in (RE)<sub>2-x</sub>Ce<sub>x</sub>CuO<sub>4</sub>: Raman vs. Inelastic Neutron Scattering  
 T. Strach, T. Ruf, M. Cardona, S. Jandl, and V. Nekvasil  
*Physica B* **234-236**, 810 (1997).
968. Diagrammatic Approach to the Fano Interference in Light Scattering from Doped Semiconductors  
 V.I. Belitsky, A. Cantarero, C. Trallero-Giner, S.T. Pavlov, and M. Cardona  
 Proceedings of the 23rd International Conference on the Physics of Semiconductors (Berlin, 1996), ed. M. Scheffler and R. Zimmermann (World Scientific Publ., Singapore, 1996), p. 309.

969. Semiconductors under Uniaxial Strain  
 M. Cardona  
*phys. stat. sol. (b)* **198**, 5 (1996).
970. Isotope Effects in the Optical Phonons of  $\text{YBa}_2\text{Cu}_3\text{O}_7$ : Eigenvector and Infrared Charge Determination  
 R. Henn, T. Strach, E. Schönherr, and M. Cardona  
*Phys. Rev. B* **55**, 3285 (1997).
971. Continuum Treatment of Phonon Polaritons in Semiconductor Heterogeneous Structures  
 F. Comas, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **56**, 4115 (1997).
972. Final-State-Interactions in the Infrared Absorption of Doped Semiconductors  
 V.I. Belitsky and M. Cardona  
*Solid State Commun.* **100**, 837 (1996).
973. Measurement of *c*-Axis Optical Absorptivity of  $\text{La}_{1.87}\text{Sr}_{0.13}\text{CuO}_4$   
 J.T. Birmingham, S.M. Grannan, P.L. Richards, R. Henn, J. Kircher, M. Cardona, A. Wittlin,  
 V.H.M. Duij, and A.A. Menovsky  
 in *Spectroscopic Studies of Superconductors*, edited by I. Bozovic and D. van der Marel, Proc.  
 SPIE 2696, 56 (1996).
974. T. Zhou, K. Syassen, M. Cardona, J. Karpinski, and E. Kaldis  
 Electronic Raman Scattering in  $\text{YBa}_2\text{Cu}_4\text{O}_8$  at High Pressure  
*Solid State Commun.* **99**, 669 (1996).
975. Vibrational Resonant Raman Scattering in Spherical Quantum Dots: Exciton Effects  
 E. Menéndez, C. Trallero-Giner, and M. Cardona  
*phys. stat. sol. (b)* **199**, 81 (1997).
976. Raman study of Stark localization in GaAs/AlAs superlattices  
 V.F. Sapega, T. Ruf, M. Cardona, H.T. Grahn, and K. Ploog in *Proceedings of the 23rd International Conference on the Physics of Semiconductors*, edited by M. Scheffler and R. Zimmermann (World Scientific, Singapore, 1996) p. 1787.
977. Hot luminescence polarization in GaAs/AlAs superlattices  
 V.F. Sapega, V.I. Perel, A.Yu. Dobin, D.N. Mirlin, I.A. Akimov, T. Ruf, M. Cardona, and K. Eberl  
 in *Proceedings of the 23rd International Conference on the Physics of Semiconductors*, edited by M. Scheffler and R. Zimmermann (World Scientific, Singapore, 1996) p. 1711.
978. Acoustic-Phonon Raman Scattering from Wannier-Stark Levels in GaAs/AlAs Superlattices  
 V.F. Sapega, T. Ruf, M. Cardona, H.T. Grahn and K. Ploog, *Phys. Rev. B* **56**, 1041 (1997).
979. Electronic Raman Scattering in YBCO and Other Superconducting Cuprates  
 T. Strohm and M. Cardona  
*Phys. Rev. B* **55**, 12725 (1997).
980. Interference Effects in Acoustic-Phonon Raman Scattering from GaAs/AlAs Mirror Plane Superlattices  
 M. Giehler, T. Ruf, M. Cardona, and K. Ploog  
*Phys. Rev. B* **55**, 7124 (1997).
981. Gallium Self-Diffusion in Gallium Arsenide: A Study using Isotope Heterostructures  
 Lei Wang, L. Hsu, E.E. Haller, J.W. Erickson, A. Fischer, K. Eberl, and M. Cardona  
 in *Proceedings of the 23rd International Conference on the Physics of Semiconductors*, edited by M. Scheffler and R. Zimmermann (World Scientific, Singapore, 1996), p. 2793.

982. Lifetime of Phonons in Semiconductors under Pressure  
 C. Ulrich, E. Anastassakis, K. Syassen, A. Debernardi, and M. Cardona  
*Phys. Rev. Lett.* **78**, 1283 (1997).
983. Miniband Effects on Hot-Electron Photoluminescence Polarization in GaAs/AlAs Superlattices  
 V.F. Sapega, V.I. Perel', A. Yu. Dobin, D.N. Mirlin, I.A. Akimov, T. Ruf, M. Cardona, and K. Eberl  
*Phys. Rev. B* **56**, 6871 (1997).
984. Magnetic-Field-Enhanced Outgoing Excitonic Resonance in Multi-Phonon Raman Scattering from Polar Semiconductors  
 I.G. Lang, A.V. Prokhorov, M. Cardona, V.I. Belitsky, A. Cantarero, and S.T. Pavlov  
*J. Phys.: Condens. Matter* **8**, 6769 (1996).
985. Raman Spectroscopy as Analytical Tool for the Local Structure of  $\text{YBa}_2\text{Cu}_3\text{O}_x$  Thin Films  
 M.N. Iliev, P.X. Zhang, H.-U. Habermeier, and M. Cardona  
*J. of Alloys and Compounds* **251**, 99 (1997).
986. Lattice Dynamics of Wurtzite CdS: Neutron Scattering and *Ab-Initio* Calculations  
 A. Debernardi, N.M. Pyka, A. Göbel, R. Lauck, S. Kramp, and M. Cardona  
*Solid State Commun.* **103**, 297 (1997).
987. Triple Magnetopolarons in Quantum Wells  
 I.G. Lang, V.I. Belitsky, A. Cantarero, L.I. Korovin, S.T. Pavlov, and M. Cardona  
*Phys. Rev. B* **56**, 6880 (1997).
988. Electronic Raman Scattering in  $\text{YBa}_2\text{Cu}_4\text{O}_8$  at High Pressure  
 T. Zhou, K. Syassen, M. Cardona, J. Karpinski, and E. Kaldis  
 Proceedings of the 10th Anniversary HTS Workshop on Physics, Materials and Applications,  
 ed. by B. Batlogg, C.W. Chu, W.K. Chu, D.U. Gubser, and K.A. Müller (World Scientific,  
 Singapore, 1996), p. 367.
989. Outgoing Excitonic Resonance in Resonant Raman Scattering in a Magnetic Field  
 V.I. Belitskii, A. Cantarero, M. Cardona, I.G. Lang, A.V. Prokhorov, and S.T. Pavlov, *Zh. Eksp. Teor. Fiz.* **110**, 981 (1996) [*JETP* **83**, 542 (1996)].
990. Growth of (110) Oriented Epitaxial  $R\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$  Thin Films and Characterization with Raman Spectroscopy  
 J. Brunen, T. Strach, J. Zegenhagen, and M. Cardona  
*Physica C* **282 – 287**, 599 (1997).
991. Plane Oxygen Vibrations and Their Temperature Dependence in  $\text{HgBa}_2\text{Ca}_2\text{Cu}_3\text{O}_8 + \delta$  Single Crystal  
 Xingjiang Zhou, M. Cardona, D. Colson, and V. Viallet  
*Phys. Rev. B* **55**, 12770 (1997).
992. Efectos de la Composición isotópica en las Propiedades Físicas de los Cristales Semiconductores  
 M. Cardona  
*Rev. R. Acad. Cien. Exact. Fís. Nat. (Esp.)* Vol. 90, 247 (1996).
993. Multiple Features in Electronic Raman Spectra of  $\text{HgBa}_2\text{Ca}_2\text{Cu}_3\text{O}_8 + \delta$  Superconductor  
 Xingjiang Zhou, M. Cardona, D. Colson, and V. Viallet  
*phys. stat. sol. (b)* **199**, R7 (1997).

994. Effects of Isotopic Composition on the Lattice Dynamics of CuCl  
 A. Göbel, T. Ruf, Cheng-Tian Lin, M. Cardona, J.-C. Merle, and M. Joucla  
*Phys. Rev. B* **56**, 210 (1997).
995. Feynman Diagrams and Fano Interference in Light Scattering from Doped Semiconductors  
 V.I. Belitsky, A. Cantarero, M. Cardona, C. Trallero-Giner, and S.T. Pavlov  
*J. Phys.: Condens. Matter* **9**, 5965 (1997).
996. Growth of (110) and (103)/(013) Oriented Epitaxial  $\text{SmBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Thin Films on  $\text{SrTiO}_3$  and Characterization with Raman Spectroscopy  
 J. Brunen, T. Strach, J. Zegenhagen, and M. Cardona  
*Proceedings of the M<sup>2</sup>S-HTSC Conference, Bejing, P.R. China, 1997, Physica C* **289**, 177 (1997).
997. Gallium Self-Diffusion in Gallium Phosphide  
 Lei Wang, J.A. Wolk, L. Hsu, E.E. Haller, J.W. Erickson, M. Cardona, T. Ruf, J.P. Silveira, and F. Briones  
*Appl. Phys. Lett.* **70**, 1831 (1997).
998. Far-Infrared Reflectance and Raman Scattering Study of Infinite-Layer  $\text{SrCuO}_2$   
 Xingjiang Zhou, M. Cardona, W. König, J. Zegenhagen, and Z.X. Zhao  
*Proceedings for M<sup>2</sup>-HTSC Conference, Physica C* **282 – 287**, 1011 (1997).
999. Raman Scattering by Electronic Excitations in High  $T_c$  Superconductors  
 M. Cardona, T. Strohm, and X.J. Zhou  
*Proceedings for M<sup>2</sup>-HTSC Conference, Physica C* **282 – 287**, 222 (1997).
1000. Electron and Hole  $g$  Factors Measured by Spin-Flip Raman Scattering in  $\text{CdTe}/\text{Cd}_{1-x}\text{Mg}_x\text{Te}$  Single Quantum Wells  
 A.A. Sirenko, T. Ruf, M. Cardona, D.R. Yakovlev, W. Ossau, A. Waag, and g. Landwehr  
*Phys. Rev. B* **56**, 2114 (1997).
1001. Vibrational and Electronic Raman Scattering of  $\text{HgBa}_2\text{Ca}_2\text{Cu}_3\text{O}_{8+\delta}$  Superconductor  
 Xingjiang Zhou, M. Cardona, D. Colson, and V. Viallet  
*Proceedings for M<sup>2</sup>-HTSC Conference, Physica C* **282 – 287**, 1007 (1997).
1002. Dynamics of the  $c$ -Polarized Infrared Active Modes in  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$   
 R. Henn, A. Wittlin, M. Cardona, and S. Uchida  
*Phys. Rev. B* **56**, 6295 (1997).
1003. Raman Characterization of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Thin Films  
 P.X. Zhang, T. Sekinger, U. Sticher, B. Leibold, H.-U. Habermeier, and M. Cardona  
*Proceedings for M<sup>2</sup>-HTSC Conference, Physica C* **282 – 287**, 1047 (1997).
1004. Far-Infrared Ellipsometry using Synchrotron Radiation: The Out-of-plane Response of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$   
 R. Henn, C. Bernhard, A. Wittlin, M. Cardona, and S. Uchida  
*Thin Solid Films* **313 – 314**, 642 (1998).
1005. Determination of the s-Wave/d-Wave Gap Ratio in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  from Electronic Raman Scattering and the LMTO Band Structure  
 T. Strohm and M. Cardona  
*Solid State Commun.* **104**, 233 (1997).
1006. Transport Properties and Flux Pinning by Self-Organization in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Films on Vicinal  $\text{SrTiO}_3(001)$   
 T. Haage, J. Zegenhagen, J.Q. Li, H.-U. Habermeier, M. Cardona, Ch. Jooss, R. Warthmann,

- A. Forkl, and H. Kronmüller  
 Phys. Rev. B **56**, 8404 (1997).
1007. Strong Electron-Phonon Interactions in  $\text{HgBa}_2\text{Ca}_3\text{Cu}_4\text{O}_{10+\delta}$  Superconductor  
 X.J. Zhou, V.G. Hadjiev, M. Cardona, Q.M. Lin, and C.W. Chu  
 phys. stat. sol. (a) **202**, R7 (1997).
1008. Ellipsometric Investigations of Piezooptical Effects  
 M. Cardona, D. Rönnow, and P.V. Santos  
 Thin Solid Films **313 – 314**, 10 (1998).
1009. Infrared Absorption in Amorphous Silicon from ab initio Molecular Dynamics  
 A. Debernardi, M. Bernasconi, M. Cardona, and M. Parrinello  
 Appl. Phys. Lett. **71**, 2692 (1997).
1010. Optical Activity in Semiconductors: Stress and Confinement Effects  
 B. Koopmans, P.V. Santos, and M. Cardona  
 phys. stat. sol. (b) **205**, 419 (1998).
1011. Raman Scattering Studies on Si-doped GaAs Grown by Hydrogen-assisted molecular beam epitaxy  
 J.M. Zhang, M. Cardona, Z.L. Peng, and Y. Horikoshi  
 Appl. Phys. Lett. **71**, 1813 (1997).
1012. Structural and Optical Properties of  $\text{HgO}$  at High Pressure  
 T. Zhou, U. Schwarz, M. Hanfland, Z.X. Liu, K. Syassen, and M. Cardona  
 phys. stat. sol. (b)i **198**, 411 (1996).
1013. Effect of Pressure on the Crystal Structure, Vibrational Modes, and Electronic Excitations of  $\text{HgO}$   
 T. Zhou, U. Schwarz, M. Hanfland, Z.X. Liu, K. Syassen, and M. Cardona  
 Phys. Rev. B **57**, 153 (1998).
1014. Thermal Conductivity of Germanium Crystals with Different Isotopic Compositions  
 M. Asen-Palmer, K. Bartkowski, E. Gmelin, M. Cardona, A.P. Zhernov, V.I. Ozhogin, A.V. Inyushkin, A. Taldenkov, K. Itoh, and E.E. Haller  
 Phys. Rev. B **56**, 9431 (1997).
1015. Thermal Conductivity of Isotopically Enriched Si  
 W.S. Capinski, H.J. Maris, E. Bauser, I. Silier, M. Asen-Palmer, T. Ruf, M. Cardona, and E. Gmelin  
 Appl. Phys. Lett. **71**, 2109 (1997).
1016. Raman Scattering on  $\alpha$ -Sn: Dependence on Isotopic Composition  
 D.T. Wang, A. Göbel, J. Zegenhagen, and M. Cardona  
 Phys. Rev. B **56**, 13167 (1997).
1017. Determination of the Phase Difference between the Raman Tensor Elements of the  $A_{1g}$ -like Phonons in  $\text{SmBa}_2\text{Cu}_3\text{O}_{7-\delta}$   
 T. Strach, J. Brunen, B. Lederle, J. Zegenhagen, and M. Cardona  
 Phys. Rev. B **57**, 1292 (1998).
1018. Nanoscale Engineering: Tailored Transport Properties by Self-Organization of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Thin Films  
 T. Haage, J. Zegenhagen, Ch. Jooss, R. Warthmann, J.Q. Li, H.-U. Habermeier, and M. Cardona  
 Physica C **282 – 287**, 557 (1997).

1019. Optical Phonons Probe of the  $\text{SrLaAlO}_4$  Crystal Structure V.G. Hadjiev, M. Cardona, I. Ivanov, V. Popov, G. Gyulmezov, M.N. Iliev, M. Berkowski  
*J. of Alloys and Compounds* **251**, 7 (1997).
1020. Spectroscopic Ellipsometry Measurements of  $\text{Al}_x\text{Ga}_{1-x}\text{N}$  in the Energy Range 3–25 eV T. Wethkamp, K. Wilmers, N. Esser, W. Richter, O. Ambacher, H. Angerer, G. Jungk, R.L. Johnson, and M. Cardona  
*Thin Solid Films* **313 – 314**, 745 (1998).
1021. Cathodoluminescence Investigation of Isotope Effects in Diamond T. Ruf, M. Cardona, H. Sternschulte, S. Wahl, K. Thonke, R. Sauer, P. Pavone, and T.R. Anthony  
*Solid State Commun.* **105**, 311 (1998).
1022. Fine Structure of the Boron Bound Exciton in Diamond H. Sternschulte, S. Wahl, K. Thonke, R. Sauer, T. Ruf, M. Cardona, and T.R. Anthony  
*Proc. JCDS, Portugal* (1997).
1023. Strong Superconductivity-Induced Phonon Self-Energy Effects in  $\text{HgBa}_2\text{Ca}_3\text{Cu}_4\text{O}_{10+\delta}$  V.G. Hadjiev, Xingjiang Zhou, T. Strohm, M. Cardona, Q.M. Lin, and C.W. Chu  
*Phys. Rev. B* **58**, 1043 (1998).
1024. Piezo-Optics of InP in the Visible-Ultraviolet Range D. Rönnow, P. Santos, M. Cardona, E. Anastassakis, and M. Kuball  
*Phys. Rev. B* **57**, 4432 (1998).
1025. Optical Phonons in Isotopic Ge Studied by Raman Scattering J.M. Zhang, M. Giehler, A. Göbel, T. Ruf, M. Cardona, E.E. Haller, and K. Itoh  
*Phys. Rev. B* **57**, 1348 (1998).
1026. Raman Scattering in Os: Nonadiabatic Renormalization of the Optical Phonon Self-Energies Yu.S. Ponomov, G.A. Bolotin, C. Thomsen, and M. Cardona  
*phys. stat. sol.* **208**, 257 (1998).
1027. Optical Vibrons in CdSe Dots: Frequency and Lineshapes C. Trallero-Giner, A. Debernardi, M. Cardona, E. Menéndez-Proupín, and A.I. Ekimov  
*Phys. Rev. B* **57**, 4664 (1998).
1028. Raman Spectra of Isotopic GaN J.M. Zhang, T. Ruf, M. Cardona, O. Ambacher, M. Stutzmann, J.-M. Wagner, and F. Bechstedt  
*Phys. Rev. B* **56**, 14399 (1997).
1029. Isotope Effects on Exciton Energies in CdS J.M. Zhang, T. Ruf, R. Lauck, and M. Cardona  
*Phys. Rev. B* **57**, 9716 (1998).
1030. Comment on “Screening of the  $B_{1g}$  Raman Response in d-Wave Superconductors” T. Strohm, D. Munzar, and M. Cardona  
*Phys. Rev. B* **58**, 8839 (1998).
1031. Phonons, Strains, and Pressure in Semiconductors E. Anastassakis and M. Cardona  
 in *High-Pressure in Semiconductor Physics II, Semiconductors and Semimetals*, Vol. 55, eds. T. Suski and W. Paul (Academic Press, New York, 1998) p. 117.

1032. Microscopic Theory of the Time-Dependent Response from Quantum Wells  
 I.G. Lang, V.I. Belitsky, and M. Cardona  
*phys. stat. sol. (a)* **164**, 307 (1997).
1033. Effect of Ce Doping on Raman Active Crystal-Field Excitations in  $\text{Nd}_{2-x}\text{Ce}_x\text{CuO}_4$   
 S. Jandl, T. Strach, T. Ruf, M. Cardona, V. Nekvasil, C. Chen, B.M. Wanklyn, D.I. Zhigunov,  
 S.N. Barilo, and S.V. Shiryaev  
*J. Phys. Chem. Solids* **59**, 1985 (1998).
1034. Electronic c-Axis Response of  $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$  Crystals Studied by Far-Infrared Ellipsometry  
 C. Bernhard, R. Henn, A. Wittlin, M. Kläser, Th. Wolf, G. Müller-Vogt, C.T. Lin, and M. Cardona  
*Phys. Rev. Lett.* **80**, 1762 (1998).
1035. Superconductivity-Induced Phonon Renormalization in  $(\text{Cu,C})\text{Ba}_2\text{Ca}_3\text{Cu}_4\text{O}_z$  Superconductor  
 V.G. Hadjiev, M. Cardona, Z.L. Du, Y.Y. Xue, and C.W. Chu  
*phys. stat. sol. (b)* **205**, R1 (1998).
1036. Nondestructive Determination of the  $^{13}\text{C}$  Content in Isotopic Diamond by Nuclear Resonance Fluorescence  
 O. Beck, T. Ruf, Y. Finkelstein, M. Cardona, T.R. Anthony, D. Belic, T. Eckert, D. Jäger, U. Kneissl, H. Maser, R. Moreh, A. Nord, H.H. Pitz, and A. Wolpert  
*J. Appl. Phys.* **83**, 5484 (1998).
1037. Spin-Flip and Acoustic-Phonon Raman Scattering in CdS Nanocrystals  
 A.A. Sirenko, V.I. Belitsky, T. Ruf, M. Cardona, A.I. Ekimov, and C. Trallero-Giner  
*Phys. Rev. B* **58**, 2077 (1998).
1038. Dependence of Phonon Linewidths in Semiconductors on Temperature and Isotopic Composition  
 A. Debernardi and M. Cardona  
*Nuovo Cimento* **20D**, 923 (1998).
1039. Isotope effects on the electronic critical points of germanium: Ellipsometric investigation of the  $E_1$  and  $E_1 + \Delta_1$  Transitions  
 D. Rönnow, L.F. Lastras-Martínez, and M. Cardona  
*Europ. Phys. Journal B* **5**, 29 (1998).
1040. Nucleation Mechanism of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  on  $\text{SrTiO}_3(001)$   
 T. Haage, J. Zegenhagen, H.-U. Habermeier, and M. Cardona  
*Phys. Rev. Lett.* **80**, 4225 (1998).
1041. Effects of the Isotopic Composition on the Fundamental Gap of CuCl  
 A. Göbel, T. Ruf, M. Cardona, C.T. Lin, J. Wrzeskinski, M. Steube, K. Reimann, J.-C. Merle, and M. Joucla  
*Phys. Rev. B* **57**, 15183 (1998).
1043. Phonons, Electrons, and Electron-Phonon Interaction: Semiconductors and High- $T_c$  Superconductors  
 M. Cardona  
 in *Ultrafast Dynamics of Quantum Systems: Physical Processes and Spectroscopic Techniques*, ed. by B. DiBartolo (Plenum Publ. Corp, New York 1998), p. 257 – 293.
1044. Raman Study of Phonons and Crystal-Field Excitations in  $\text{NbBa}_2\text{Cu}_{3-x}\text{Ga}_x\text{O}_{7-\delta}$   
 T. Strach, T. Ruf, A.M. Niraimathi, A.A. Martin, and M. Cardona  
*Physica C* **301**, 9 (1998).

1045. Comment on “Raman Scattering Study on Fully Oxygenated  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Single Crystals: x-y Anisotropy in the Superconductivity-Induced Effects”  
 T. Strohm, V.I. Belitsky, V.G. Hadjiev, and M. Cardona  
*Phys. Rev. Lett.* **81**, 2180 (1998).
1046. Raman Scattering in High  $T_c$  Superconductors  
 M. Cardona  
 Proceedings of the XVI International Conference on Raman Scattering, Cape Town, Sept. 98, ed. by A.M. Heyns (John Wiley & Sons, Chichester, 1998), p. 21.
1047. Effects of Isotope Disorder on Energies and Lifetimes of Phonons in Germanium  
 A. Göbel, D.T. Wang, M. Cardona, L. Pintschovius, W. Reichardt, J. Kulda, N.M. Pyka, K. Itoh, and E.E. Haller  
*Phys. Rev. B* **58**, 10510 (1998).
1048. Resonant Hyper-Raman Scattering in Semiconductors  
 A. García-Cristóbal, A. Cantarero, C. Trallero-Giner, and M. Cardona  
*Phys. Rev. B* **58**, 10443 (1998).
1049. Dielectric Function of Hexagonal AlN Films Determined by Spectroscopic Ellipsometry in the Vacuum-UV Spectral Range  
 T. Wethkamp, K. Wilmers, C. Cobet, N. Esser, W. Richter, O. Ambacher, M. Stutzmann, and M. Cardona  
*Phys. Rev. B* **59**, 1845 (1999).
1050. Flux Growth of  $\text{Hg}_{1-x}\text{Re}_x\text{Ba}_2\text{Ca}_{n-1}\text{Cu}_n\text{O}_{2n+2+\delta}$  Single Crystals by Self-Atmosphere  
 C.T. Lin, Y. Yan, K. Peters, E. Schönherr, and M. Cardona  
*Physica C* **300**, 141 (1998).
1051. Self- and Interdiffusion in  $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$  Isotope Heterostructures  
 H. Bracht, E.E. Haller, K. Eberl, and M. Cardona  
*Appl. Phys. Lett.* **74**, 49 (1999).
1052. Raman Study of Coupled Phonon-Crystal-Field Excitations in  $\text{Nd}_{1-x}\text{Ba}_{2-x}\text{Cu}_3\text{O}_y$  Single Crystals  
 A.A. Martin, T. Ruf, T. Strach, M. Cardona, and T. Wolf  
*Phys. Rev. B* **58**, 14349 (1998).
1053. Standing Acoustic Waves in GaAs/AlAs Mirror-Plane Superlattices and Cavity Structures Studied by Raman Spectroscopy  
 M. Giehler, T. Ruf, M. Cardona, and K.H. Ploog  
*Physica B* **263-264**, 489 (1999).
1054. Raman Studies of Isotope Effects in Si and GaAs  
 F. Widulle, T. Ruf, A. Göbel, I. Silier, E. Schönherr, M. Cardona, J. Camacho, A. Cantarero, W. Kriegseis, and V.I. Ozhogin  
*Physica B* **263-264**, 381 (1999).
1055. First Principles Calculation of the Real Part of Phonon Self-Energy in Compound Semiconductors  
 A. Debernardi and M. Cardona  
*Physica B* **263-264**, 687 (1999).
1056. The Phonon Dispersion of Wurzite CdSe  
 F. Widulle, S. Kramp, N.M. Pyka, A. Göbel, T. Ruf, A. Debernardi, R. Lauck, and M. Cardona  
*Physica B* **263-264**, 448 (1999).

1057. Self-Diffusion in Isotopically Controlled Heterostructures of Elemental and Compound Semiconductors  
 H. Bracht, E.E. Haller, K. Eberl, M. Cardona, and R. Clark-Phelps  
*Proceedings of the Conference on Diffusion Mechanisms in Crystalline Materials*
1058. Determination of the Piezo-Optical Properties of Semiconductors above the Fundamental Gap by Means of Reflectance Difference Spectroscopy  
 D. Rönnow, L.F. Lastras-Martínez, M. Cardona, and P.V. Santos  
*J. Opt. Soc. Am. A* **16**, 568 (1999).
1059. Infrared Study of Crystal-Field Excitations in  $\text{NdBa}_3\text{Cu}_3\text{O}_6$   
 A.A. Martin, T. Ruf, M. Cardona, S. Jandl, D. Barba, V. Nekvasil, M. Diviš, and T. Wolf  
*Phys. Rev. B* **59**, 6528 (1999).
1060. On the Multiple Peak Structure of Electronic Raman Scattering Spectra in Cd-Doped  $\text{Nd}_2\text{CuO}_4$   
 V. Nekvasil, S. Jandl, T. Strach, T. Ruf, and M. Cardona  
*J. of Magnetism and Magnetic Materials* **177–181**, 535 (1998).
1061. A Far-Infrared Ellipsometric Study of the Spectral Gap in the c-Axis Conductivity of  $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$  Crystals  
 C. Bernhard, D. Munzar, A. Wittlin, W. König, A. Golnik, C.T. Lin, M. Kläser, Th. Wolf, G. Müller-Vogt, and M. Cardona  
*Phys. Rev. B* **59**, R6631 (1999).
1062. Optical Absorptivity of  $\text{La}_{1.87}\text{Sr}_{0.13}\text{CuO}_4$  below the Superconducting Plasma Edge  
 J.T. Birmingham, S.M. Grannan, P.L. Richards, J. Kircher, M. Cardona, and A. Wittlin  
*Phys. Rev. B* **59**, 647 (1999).
1063. Resonant Raman Scattering in InP/InGaP Quantum Dot Structures Embedded in a Waveguide  
 A.A. Sirenko, M.K. Zundel, T. Ruf, K. Eberl, and M. Cardona  
*Phys. Rev. B* **58**, 12633 (1998).
1064. Thermal Conductivity of GaAs/AlAs Superlattices  
 W.S. Capinski, M. Cardona, D.S. Katzer, H.J. Maris, K. Ploog, and T. Ruf  
*Physica B* **263–264** (1999).
1065. Raman Study of Isotope Effects on the Phonon Dispersion in SiC  
 F. Widulle, T. Ruf, O. Buresch, A. Debernardi, and M. Cardona  
*Proceedings of the 24th International Conference on the Physics of Semiconductors*, Jerusalem, 1998, CD-Rom.
1066. Isotopic Mass and Lattice Constant: X-ray Standing Wave Measurements  
 A. Kazimirov, J. Zegenhagen, and M. Cardona  
*Science* **282**, 930 (1998).
1067. Microscopic Reflection Difference Spectroscopy on Semiconductor Nanostructures  
 B. Koopmans, P.V. Santos, and M. Cardona  
*phys. stat. sol. (a)* **170**, 307 (1998).
1068. Phonons in Isotopically Modified Semiconductors and High  $T_c$  Superconductors  
 M. Cardona  
*Physica B* **263/264**, 376 (1999).
1069. Raman Scattering from the Superconducting Phase: Electronic Excitations and Phonon Renormalization Effects  
 V.G. Hadjiev, T. Strohm, M. Cardona, Z.L. Du, Y.Y. Xue, and C.W. Chu  
*ACS Symposium Series 730: Spectroscopy of Superconducting Materials*, ed. by E. Faulques (American Chemical Society, Washington, D.C., 1999), p. 180.

1070. Isotope Effects on Phonons and Band Gap in ZnSe  
 A. Göbel, J.M. Zhang, T. Ruf, R. Lauck, and M. Cardona  
 Proceedings of the 24th International Conference on the Physics of Semiconductors, Jerusalem, 1998, CD-Rom.
1071. Anomalous Phonon Self-Energy Effects in  $\text{SmBa}_2\text{Cu}_3\text{O}_y$ : A Raman Study  
 A.A. Martin, V.G. Hadjiev, T. Ruf, M. Cardona, and T. Wolf  
*Phys. Rev. B* **58**, 14211 (1998).
1072. Raman Linewidths of Optical Phonons in 3C-SiC under Pressure: First-Principle Calculations and Experimental Results  
 A. Debernardi, C. Ulrich, K. Syassen, and M. Cardona  
*Phys. Rev. B* **59**, 6774 (1999).
1073. Reflectance Difference Spectroscopy of As/GaAs/AlAs Asymmetric (001) Quantum Wells above the Fundamental Gap  
 L.F. Lastras-Martínez, D. Rönnow, M. Cardona, K. Eberl, P. Specht, and P.V. Santos  
*phys. stat. sol. (a)* **170**, 317 (1998).
1074. Piezo-Optical Coefficients of ZnSe and ZnTe above the Fundamental Gap  
 D. Rönnow, M. Cardona, and L.F. Lastras-Martínez  
*Phys. Rev. B* **59**, 5581 (1999).
1075. Raman Linewidths of Phonons in Si, Ge, and SiC under Pressure  
 C. Ulrich, A. Debernardi, E. Anastassakis, K. Syassen, and M. Cardona  
*phys. stat. sol. (b)* **211**, 293 (1999).
1076. VUV-Ellipsometry on BeZnSe and BeTe  
 K. Wilmers, T. Wethkamp, N. Esser, C. Cobet, W. Richter, V. Wagner, H. Lugauer, F. Fischer, T. Gerhard, M. Keim, and M. Cardona  
*J. Electron. Mater.* **28**, 670 (1999).
1077. Ellipsometric Studies of  $\text{Be}_x\text{Zn}_{1-x}\text{Se}$  between 3 eV and 20 eV  
 K. Wilmers, T. Wethkamp, N. Esser, C. Cobet, W. Richter, V. Wagner, H. Lugauer, F. Fischer, T. Gerhard, M. Keim, and M. Cardona  
*Phys. Rev. B* **59**, 10071 (1999).
1078. Phonon and Fundamental Gap in ZnSe: Effects of the Isotopic Composition  
 A. Göbel, T. Ruf, J.M. Zhang, R. Lauck, and M. Cardona  
*Phys. Rev. B* **59**, 2749 (1999).
1079. Raman Scattering in CuCl under Pressure  
 C. Ulrich, A. Göbel, K. Syassen, M. Cardona, A. Cros, and A. Cantarero  
 Proc. Int. Conf. on High Pressure Semiconductor Physics, August 1998, Thessaloniki, Greece, *phys. stat. sol. (b)* **211**, 287 (1999).
1080. Thermal Conductivity Measurements of GaAs/AlAs Superlattices using a Picosecond Optical Pump-and-Probe Technique  
 W.S. Capinski, H.J. Maris, T. Ruf, M. Cardona, K. Ploog, and D.S. Katzer  
*Phys. Rev. B* **59**, 8105 (1999).
1081. Does the Peak in the Magnetic Susceptibility Determine the In-Plane Infrared Conductivity of YBCO?: A Theoretical Study  
 D. Munzar, C. Bernhard, and M. Cardona  
*Physica C* **312**, 121 (1999).

1082. Hot Photoluminescence Polarization Study of Dimensionality Effects in GaAs  
 V.F. Sapega, V.I. Perel', D.N. Mirlin, I.A. Akimov, T. Ruf, M. Cardona, W. Winter, and K. Eberl  
 Proceedings of the 4th International Conference on the Physics of Semiconductors (Jerusalem, 1998), on CD-Rom.
1083. Deformation Potentials of the  $E_1$  Transition in Ge, GaAs, InP, ZnSe, and ZnTe from *ab-initio* Calculations  
 D. Rönnow, N.E. Christensen, and M. Cardona  
*Phys. Rev. B* **59**, 5575 (1999).
1084. VUV-Ellipsometry on  $\text{Be}_x\text{Zn}_{1-x}\text{Se}$  and  $\text{BeTe}$   
 K. Wilmers, T. Wethkamp, N. Esser, C. Cobet, W. Richter, V. Wagner, H. Lugauer, F. Fischer, T. Gerhard, M. Keim, and M. Cardona  
 Proc. of II-VI Workshop on Physics and Chemistry of Materials, Las Vegas, J. Electron. Materials (1998).
1085. Optical Phonons in Isotope Superlattices of GaAs, GaP, and GaSb Studied by Raman Scattering  
 A. Göbel, T. Ruf, A. Fischer, K. Eberl, M. Cardona, J.P. Silveira, and F. Briones  
*Phys. Rev. B* **59**, 12612 (1999).
1086. Raman Study of Isotope Effects and Phonon Eigenvectors in SiC  
 F. Widulle, T. Ruf, O. Buresch, A. Debernardi, and M. Cardona  
*Phys. Rev. Lett.* **82**, 3089 (1999).
1087. The Electronic c-Axis Conductivity of  $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$  Single Crystals Studied by Far-Infrared Ellipsometry  
 C. Bernhard, D. Munzar, M. Kläser, Th. Wolf, C.T. Lin, and M. Cardona  
*Physica C* **317**, 276 (1999).
1088. Dielectric Function of  $\text{NaV}_2\text{O}_5$  and its Temperature Dependence  
 M.J. Konstantinović, L.F. Lastras-Martinez, M. Cardona, Z.V. Popović, A.N. Vasil'ev, M. Isobe, Y. Ueda  
*phys. stat. sol. (b)* **211**, R3 (1999).
1089. Raman Study of Crystal-Field Excitations in  $\text{Pr}_{2-x}\text{Ce}_x\text{CuO}_4$   
 S. Jandl, T. Strach, T. Ruf, M. Cardona, V. Nekvasil, D.I. Zhigunov, S.N. Barilo, S.V. Shiryaev  
*Physica C* **322**, 87 (1999).
1090. Raman Scattering in High  $T_c$  Superconductors: Phonons, Electrons, and Electron-Phonon Interaction  
 M. Cardona  
*Physica C* **317-318**, 30 (1999).
1091. Raman Scattering from Magnetic Excitations in the Ferromagnetic Superconductor  $\text{RuSr}_2\text{GdCu}_2\text{O}_{8-\delta}$   
 V.G. Hadjiev, A. Fainstein, P. Etchegoin, H.J. Trodahl, C. Bernhard, M. Cardona, J.L. Tallon  
*physica status solidi (b)* **211**, R5 (1999).
- 1091a Raman Scattering from Magnetic Excitations in Ruthenate Cuprates  
 V.G. Hadjiev, C. Bernhard, C.T. Lin, T. Ruf, M. Cardona, J.L. Tallon  
*Physica C* **3451-348**, 2255-2256 (2000).
1092. Pressure-Induced Disappearance of the Raman Anomaly in CuCl  
 C. Ulrich, A. Göbel, K. Syassen, and M. Cardona  
*Phys. Rev. Lett.* **82**, 351 (1999).

1093. Possible Relationship between the Peak in the Magnetic Susceptibility and the In-Plane Far-Infrared Conductivity of YBCO  
 D. Munzar, C. Bernhard, and M. Cardona  
*Physica C* **317-318**, 547 (1999).
1094. Electronic Raman Scattering in high- $T_c$  Superconductors  
 T. Strohm, M. Cardona, and A.A. Martin  
*Proceedings, Miami Conference, Jan. 1999.*
1095. Raman Study of the Anomalous TO Phonon Structure in GaP with Controlled Isotopic Composition  
 F. Widulle, T. Ruf, A. Göbel, E. Schönherr, and M. Cardona  
*Phys. Rev. Lett.* **82**, 5281 (1999).
1096. Birefringence in the Transparency of GaAs/AlAs Multiple Quantum Wells  
 A.A. Sirenko, P. Etchegoin, A. Fainstein, K. Eberl, and M. Cardona  
*Phys. Rev. B* **60**, 8253 (1999).
1097. Comment on “*Ab initio* Calculation of Excitonic Effects in the Optical Spectra of Semiconductors” by. S. Albrecht et al.  
 M. Cardona, L.F. Lastras-Martínez, and D.E. Aspnes  
*Phys. Rev. Lett.* **83**, 3970 (1999).
1098. Anomalies of the Infrared-Active Phonons in Underdoped YBCO as an Evidence for the Intra-Bilayer Josephson Effect  
 D. Munzar, C. Bernhard, A. Golnik, J. Humlíček, and M. Cardona  
*Solid State Commun.* **112**, 365 (1999).
1099. Electronic Raman Response of Optimal and Overdoped  $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$  Single Crystals  
 A.A. Martin, V.G. Hadjiev, C. Bernhard, T. Ruf, M. Cardona, and T. Wolf  
*phys. stat. sol. (b)* **214**, R21 (1999).
1100. Phonon Anomalies in the Far-Infrared c-Axis Conductivity of Underdoped  $\text{YBa}_2\text{Cu}_3\text{O}_y$  as Evidence for the Intra-Bilayer Josephson Effect  
 D. Munzar, C. Bernhard, A. Golnik, J. Humlíček, and M. Cardona  
*J. of Low Temperature Physics* **117**, 1049 (1999).
1101. Dielectric Function of Wurtzite GaN and AlN Thin Films  
 L.X. Benedict, T. Wethkamp, K. Wilmers, C. Cobet, N. Esser, E.L. Shirley, W. Richter, and M. Cardona  
*Solid State Commun.* **112**, 129 (1999).
1102. Spin-Orbit Splitting of Acceptor States in Si and C  
 J. Serrano, A. Wysmolek, T. Ruf, and M. Cardona  
*Physica B* **273-274**, 640 (1999).
1103. Spin-Orbit Splitting in Diamond: Excitons and Acceptor Related States  
 J. Serrano, M. Cardona, and T. Ruf  
*Solid State Commun.* **113**, 411 (2000).
1104. Anomaly of the Oxygen Bond-Bending Mode at  $320 \text{ cm}^{-1}$  and the Additional Absorption Peak in the *c*-Axis Infrared Conductivity of Underdoped  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Single Crystals Revisited by Ellipsometric Measurements  
 C. Bernhard, D. Munzar, A. Golnik, C.T. Lin, A. Wittlin, J. Humlíček, and M. Cardona  
*Phys. Rev. B* **61**, 618 (2000).

1105. Introduction  
 M. Cardona and G. Güntherodt  
 in: *Light Scattering in Solids VII, Topics in Applied Physics*, Vol. 75, Eds. M. Cardona and G. Güntherodt  
 (Springer Verlag, Berlin, Heidelberg, 2000), pp. 1-23.
1106. Introduction  
 M. Cardona and G. Güntherodt  
 in *Light Scattering in Solids VIII, Topics in Applied Physics*, Vol. 76, eds. M. Cardona and G. Güntherodt (Springer Verlag, Berlin, Heidelberg, 2000), p. 1-26.
1107. Lattice Phonon Modes of the High-Pressure Phase CuCl-IV  
 C. Ulrich, K. Syassen, M. Cardona, A. Cros, and A. Cantarero  
*Phys. Rev. B* **60**, 9410 (1999).
1108. Comment on “*Ab Initio* Molecular Dynamics Studies of Off-Center Displacements in CuCl”  
 M. Cardona, K. Syassen, and T. Ruf  
*Phys. Rev. Lett.* **84**, 4511 (2000).
1109. Enhanced and Retarded Ga Self-Diffusion in Si and Be Doped GaAs Isotope Heterostructures  
 H. Bracht, M. Norseng, E.E. Haller, K. Eberl, and M. Cardona  
*Solid State Commun.* **112**, 301 (1999).
1110. Infrared Study of  $\text{Nd}_{2-x}\text{Gd}_x\text{CuO}_4$  Crystal-Field Excitations  
 P. Richard, S. Jandl, Z. Ichalalène, V. Nekvasil, C.T. Lin, and M. Cardona  
 Proceed. of Conf. on Materials and Mechanisms of HTSC-VI, Houston,  
 Eds. K. Salama, W.-K. Chu and P.C.W. Chu, North-Holland Publ. (NL)  
*Physica C* **341-348** (2000), 2145-2146.
1111. Spin-Flip Raman Scattering in Mn Doped GaAs: Exchange Interaction and *g* Factor Renormalization  
 V.F. Sapega, T. Ruf, and M. Cardona  
*Solid State Commun.* **114**, 573 (2000).
1112. VUV Ellipsometry on Beryllium Chalcogenides  
 K. Wilmers, T. Wethkamp, N. Esser, C. Cobet, W. Richter, V. Wagner, A. Waag, H. Lugauer,  
 F. Fischer, T. Gerhard, M. Keim, and M. Cardona  
*phys. stat. sol. (b)* **215**, 15 (1999).
1113. Investigation of the Anomalous Raman Line Shape of the TO Phonon in GaP  
 F. Widulle, T. Ruf, E. Schönher, and M. Cardona  
*phys. stat. sol. (b)* **215**, 131 (1999).
1114. Linear Birefringence in GaAs/AlAs Multiple Quantum Wells  
 A.A. Sirenko, P. Etchegoin, A. Fainstein, K. Eberl, and M. Cardona  
*phys. stat. sol. (b)* **215**, 241 (1999).
1115. Spectroscopy of Hot Electron Photoluminescence in GaAs/AlAs Superlattices  
 V.F. Sapega, V.I. Perel, D.N. Merlin, T. Ruf, M. Cardona, W. Winter, and K. Eberl  
*phys. stat. sol. (b)* **215**, 379 (1999).
1116. Electronic Raman Scattering in  $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$  Single Crystals  
 A.A. Martin, V.G. Hadjiev, C. Bernhard, T. Ruf, M. Cardona, and T. Wolf  
*phys. stat. sol. (b)* **215**, 477 (1999).

1117. Phonon Self-Energy Effects in High-Temperature Superconductors  
V.G. Hadjiev, A.A. Martin, T. Ruf, and M. Cardona  
phys. stat. sol. (b) **215**, 483 (1999).
1118. The Far-Infrared In-Plane Conductivity of YBaCuO Studied by Ellipsometry  
A. Golnik, C. Bernhard, J. Humlíček, M. Kläser, and M. Cardona  
phys. stat. sol. (b) **215**, 553 (1999).
1119. A New Interpretation of the Phonon Anomalies in the Far-Infrared *c*-Axis Conductivity of Underdoped  $\text{YBa}_2\text{Cu}_3\text{O}_y$   
D. Munzar, C. Bernhard, A. Golnik, J. Humlíček, M. Cardona  
phys. stat. sol. (b) **215**, 557 (1999).
1120. Resonant Raman Scattering in  $\text{NaV}_2\text{O}_5$  as a Probe of its Electronic Structure  
M.J. Konstantinović, Z.V. Popović, T. Ruf, M. Cardona, A.N. Vasilev, M. Isobe, and Y. Ueda  
phys. stat. sol. (b) **215**, 661 (1999).
1121. Temperature and Isotopic Mass Dependence of the Direct Band Gap in Semiconductors:  
LCAO Calculations  
D. Olguín, A. Cantarero, and M. Cardona  
Proceed. SLAFES XV, Cartagena, Columbia (Nov. 1999), phys. stat. sol. (b), **220**, 33 (2000).
1122. Optical Study of Crystal-Field Excitation in  $(R)\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$  Single Crystals  
A.A. Martin, M. Cardona, and Th. Wolf  
Proceed. SLAFES XV, Cartagena, Columbia (Nov. 1999), phys. stat. sol. (b) **220**, 475 (2000).
1123. Isotopic Effects in the Phonon and Electron Dispersion Relations of Crystals  
M. Cardona  
Proceed. SLAFES XV, Cartagena, Columbia (Nov. 1999) phys. stat. sol. (b) **220**(1), (2000).
1124. Raman Scattering in High  $T_c$  Superconductors: Phonons, Electrons, and Magnons  
M. Cardona  
in: Springer Series in Materials Science: *Raman Scattering in Materials Sciences*, Vol. 42, pp. 151-225, eds. W.H. Weber and R. Merlin, (Springer, Heidelberg, 2000) ISBN: 3-540-67223-0.
1125. Introduction: in “Characterization of Semiconductor Nanostructures”  
M. Cardona  
Ed. F.H. Pollock, (Gordon and Breach, 2000).
- 1125a Far-Infrared *c*-Axis Conductivity of Flux-Grown  $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_7$  Single Crystals Studied by Spectral Ellipsometry  
C. Bernhard, T. Holden, A. Golnik, C.T. Lin and M. Cardona  
Phys. Rev. B **62**, 9138 (2000).
1126. Isotopic Effects on the Dielectric Response of Si around the  $E_1$  Gap  
L.F. Lastras-Martínez, T. Ruf, M. Konuma, M. Cardona, and D.E. Aspnes  
Phys. Rev. B **61**, 12946 (2000).
1127. The Widths of Raman Phonons  
M. Cardona  
Proceedings XVII. Int. Conf. on Raman Spectroscopy (ICORS-2000), Beijing, eds. S.L. Zhang and B.F. Zhu, (Wiley-VCH Verlag, Weinheim, Germany, 2000), pp. 53-56.
- 1127a The Phonon Dispersion of Wurtzite-Structure GaN Studied by Inelastic X-Ray Scattering  
T. Ruf, J. Serrano, M. Cardona, P. Pavone, M. Pabst, M. Krisch, M.D'Astuto, T. Suski, I. Grzegory, M. Leszczynski  
Proc. XVII. ICORS-2000 Conf. on Raman Spectroscopy, Beijing, Eds. S.L. Zhang and B.F. Zhu, Wiley, New York, 2000), p.428.

1128. En Dialogo con Günter Grass  
 M. Cardona, H. Meinke, R. Sevilla  
 in "Diálogo Científico" **8**, 131 (1999).
1129. Multiphonon Resonant Raman Scattering in Nanocrystals  
 R. Rodríguez-Suárez, E. Menéndez-Proupin, C. Trallero-Giner, M. Cardona  
*Phys. Rev. B* **62**(16), 11006 (2000).
1130. Infrared Vibrations in LaSrGaO<sub>4</sub> and LaSrAlO<sub>4</sub>  
 J. Humlíček, R. Henn and M. Cardona  
*Phys. Rev. B* **61**, 14554 (2000).
1131. Growth of Single Crystals  
 C.T. Lin and M. Cardona  
 in *Properties, Processing and Applications of YBCO and Related Materials*,  
 Eds. W. Lo and A. Campbell, IEE-2000 (Faraday House, Hertfordshire, 2000).
1132. Phonon Dispersion Curves in Wurtzite-Structure GaN Determined by Inelastic X-Ray Scattering  
 T. Ruf, J. Serrano, M. Cardona, P. Pavone, M. Pabst, M. Krisch, M. D'Astuto, T. Suski,  
 I. Grzegory and M. Leszczynski  
*Phys. Rev. Lett.* **86**, 906 (2001).
1133. Thermal Conductivity of Isotopically Enriched Silicon  
 T. Ruf, R.W. Henn, M. Asen-Palmer, E. Gmelin, M. Cardona, H.-J. Pohl, G.G. Devyatych and  
 P.G. Sennikov  
*Solid State Commun.* **115**, 243 (2000); Erratum: *Solid State Commun.* **127**, 257 (2003).
- 1133a Erratum to: Thermal Conductivity of Isotopically Enriched Silicon [SSC **115** (2000) 243]  
 T. Ruf, R.W. Henn, M. Asen-Palmer, E. Gmelin, M. Cardona, H.-J. Pohl, G.G. Devyatych,  
 P.G. Semikov  
*Solid State Commun.* **127** (2003) 257.
1134. 4f-Levels in Rare Earth Cuprates  
 V. Nekvasil, S. Jandl, M. Cardona, M. Divis, A.A. Nugroho  
 Proc. ICFE-4 Conf. on f-Elements, Madrid 2000  
*J. Alloys and Compounds*, 323-324, 549 (2001).
1135. Magneto-Spectroscopy of Donor-Bound Excitons in Homoepitaxial GaN  
 A. Wysmolek, V.F.Sapega, T. Ruf, M. Cardona, M. Potemski, P. Wyder, R. Stepniewski, K.  
 Pakula, J.M. Baranowski, I. Grzegory, S. Porowski  
 Int. Workshop on Nitride Semiconductors, Nagoya, Japan 2000, Inst. of Pure & Appl. Phys.,  
 Series I, p. 579 (2000).
1136. Crystal Field Effect on the f-Levels of R<sub>1-x</sub>Ba<sub>2-x</sub>Cu<sub>3</sub>O<sub>6+y</sub>(R = Sm,Nd)  
 V. Nekvasil, S. Jandl, D. Barba, A.A. Martin, M. Cardona, M. Divis, M. Marysko,  
 T. Wolf  
 Proc. Int. Conf. on Magnetism, Recife (2000),  
*J. Magnetism and Magnet. Mater.* **226-230**, 985-987 (2001).
1137. The Effect of Epitaxial Strain on RBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> Thin Films and the Perovskite Substrate  
 L.X. Cao, J. Zegenhagen, E. Sozontov, M. Cardona  
 IUMRS-ICAM'99 Conf., Beijing, China (1999), *Physica C* **337**, (2000) pp. 24-30.
1138. Temperature Dependence of the Refractive Index in Diamond Up to 925 K  
 T. Ruf, M. Cardona, C.S.J. Pickles, R. Sussmann  
*Phys. Rev. B* **62**, 16578-16581 (2000).

1139. Spin-Orbit Splittings in AlN, GaN and InN  
 M. Cardona and N.E. Christensen  
*Sol. Stat. Commun.* **116**, 421-425 (2000).
1140. High-Resolution Spectroscopy with Reciprocal-space Analysis:  
 Application to Isotopically Pure Si  
 S.D. Yoo, D.E. Aspnes, L.F. Lastras-Martínez, T. Ruf, M. Konuma and M. Cardona  
*physica status sol. (b)* **220**, 117 (2000).
1141. Pressure Dependence of Raman Linewidth in Semiconductors  
 A. Debernardi, C. Ulrich, M. Cardona and K. Syassen, E. Anastassakis  
 Proceed. IX. Conf. on High-Pressure Semiconductor Physics, Sapporo, Japan,  
*physica status solidi (b)*, **223**(1), 213 (2001).
1142. Comment on: Revised Fine Splitting of Excitons in Diamond  
 M. Cardona, T. Ruf and J. Serrano  
*Phys. Rev. Lett.* **86**, 3923 (2001).
1143. Isotope Disorder in the Raman Spectrum of Silicon  
 F. Widulle, T. Ruf, M. Konuma, I. Silier, W. Kriegseis, V.I. Ozhogin and M. Cardona  
 Proceed. XXV. Int. Conf. on Physics of Semiconductors, Osaka (2000), Springer Proc. in  
 Physics, **87** 69 (2001), Eds. N. Miura and T. Ando.
1144. Raman Study of Isotopically Tailored CuBr  
 J. Serrano, F. Widulle, T. Ruf, C.T. Lin and M. Cardona  
 Proc. XXV Int. Conf. on Physics of Semiconductors, Osaka (2000), Springer, Heidelberg,  
 (2001) p. 67.
1145. Inelastic X-Ray Scattering Study of Phonons in GaN and Diamond  
 T. Ruf, J. Serrano, M. Cardona, P. Pavone, M. Pabst, M. Krisch, M. D'Astuto, T. Suski, I. Grzegory, M. Leszczynski and T.R. Anthony  
 Proceed. XXV. Int. Conf. on Physics of Semiconductors, Osaka, 2000, (Springer, Heidelberg,  
 2001), Eds. N. Miura and T. Ando, **87**, p. 1531.
1146. Isotope Effect on the Thermal Conductivity of Silicon  
 T. Ruf, R.W. Henn, M. Asen-Palmer, E. Gmelin, M. Cardona, H.-J. Pohl, G.G. Devyatych,  
 P.G. Senikov, J. Bollmann  
 Proceed. XXV. Int. Conf. on Physics of Semiconductors, Osaka, 2000 (Springer, Heidelberg,  
 2001), Eds. N. Miura and T. Ando, p. 132.
1147. X-Ray Standing Wave Analysis of Rare Earth Atomic Positions in  $\text{RBa}_2\text{Cu}_3\text{O}_7$  Thin Films  
 A. Kazimirov, L.X. Cao, G. Scherb, L. Cheng, M.J. Bedzyk, M. Cardona and J. Zegenhagen  
*Solid State Commun.* **114**, 271-276 (2000).
1148. Raman Lineshapes of GaP Under Pressure  
 S. Ves, I. Loa, K. Syassen, F. Widulle, and M. Cardona  
 Proceed. IX. Conf. on High-Pressure in Semiconductors, Sapporo,  
*phys. stat. solidi (b)* **223**, 241 (2001).
1149. Infrared Transmission Study of Crystal-Field Excitations in  $\text{Sm}_{1+x}\text{Ba}_{2-x}\text{Cu}_3\text{O}_{6+y}$   
 D. Barba, S. Jandl, V. Nekvasil, M. Marysko, M. Divis, A.A. Martin, C.T. Lin, M. Cardona,  
 T. Wolf  
*PRB*, **63**, 54528-54538 (2001).
1150. Phonons: The Second Type of Quantum Excitations Discovered  
 M. Cardona  
*Annalen der Physik (Leipzig)*, **11-12(9)**, 865-870 (2000).

1151. Isotopic Mass and Lattice Constants of Si and Ge: X-Ray Standing Wave Measurements  
 J. Zegenhagen, A. Kazimirov, L.X. Cao, M. Konuma, E. Sozontov, D. Plachke, H.D. Carstanjen, G. Bilger, E.E. Haller, V. Kohn, M. Cardona  
 XXV. Int. Conf. on Physics of Semiconductors, Osaka 2000, Springer Proc. in Physics, **87** (2001) p. 125-127.
1152. Spin-Flip Raman Study of Exchange Interactions in Bulk GaAs:Mn  
 V.F. Sapega, T. Ruf and M. Cardona  
*phys. stat. sol. (b)*, **226**(2), 339-356 (2001).
1153. Correlation Between the Josephson Coupling Energy and the Condensation Energy in Bilayer Cuprate Superconductors  
 D. Munzar, C. Bernhard, T. Holden, A. Golnik, J. Humlíček, M. Cardona  
*Phys. Rev. B* **64**, 24523 (2001).
1154. Phonon Self-Energies in Semiconductors: Anharmonic and Isotopic Contributions  
 M. Cardona and T.Ruf  
*Sol. State Commun.* **117**, 201-212 (2001).
1155. Isotopic Investigation of Lattice Dynamics in CuBr  
 J. Serrano, T. Ruf, F. Widulle, C.T. Lin, M. Cardona  
*Phys. Rev. B* **64**, 045201 (2001).
1156. Isotopic Effects in Elemental Semiconductors: A Raman Study of Silicon  
 F. Widulle, T. Ruf, M. Konuma, I. Silier, W. Kriegseis, V.I. Ozhogin, M. Cardona  
*Sol. Stat. Commun.* **118**, 1-22 (2001).
1157. Effect of Pressure on Anomalous Raman Spectrum of CuBr  
 F.J. Manjón, J. Serrano, I. Loa, K. Syassen, C.T. Lin, and M. Cardona  
*phys. stat. solidi. b*, **223** (1), 331 (2001).
1158. Optical Study of  $RE_{1-x}Ba_{2-x}Cu_3O_6$  ( $RE = Nd, Sm$ ) and  $YBa_2Cu_3O_6$  in the Mid-Infrared Range  
 D. Barba, S. Jndl, A.A. Martin, C.T. Lin, M. Cardona and T. Wolf  
*Europ. J. Phys. B* **22**, 277-281 (2001).
1159. Photoluminescence of Isotopically Purified Si: How Sharp are Bound Exciton Transitions?  
 D. Karaiskaj, M.L.W. Thewalt, T. Ruf, M. Cardona, H.-J. Pohl, G.G. Devyatych,  
 P.G. Sennikov, H. Riemann  
*Phys. Rev. Lett.* **86**, 6010 (2001).
1160. X-Ray Standing Wave Analysis of the Effect of Isotopic Composition on the Lattice Constants of Si and Ge  
 E. Sozontov, L.X. Cao, A. Kazimirov, V. Kohn, M. Konuma, M. Cardona, J. Zegenhagen  
*Phys. Rev. Lett.* **86**, 5329 (2001).
1161. Wolfgang Richter: His Resonance as a Raman Scatterer  
 M. Cardona  
*phys. stat. sol.(a)*, **184** (1), 1-10 (2001).
1162. Disorder-Induced Phonon Self-Energy of Semiconductors with Binary Isotopic Composition  
 F. Widulle, J. Serrano and M. Cardona  
*Phys. Rev. B* **65**, 075206 (2002).
1163. Effect of Pressure on Raman Anomaly of Zincblende CuBr and Raman Spectra of High-Pressure Phases  
 F.J. Manjón, J. Serrano, I. Loa, K. Syassen, C.T. Lin, M. Cardona  
*Phys. Rev. B* **64**, 64301 (2001).

1164. Recent Developments in Phonon Physics: Overview and Future Outlook  
M. Cardona  
Proceed. X. Int. Conf. on Phonon Scattering in Condensed Matter, Hanover, N.H., USA, Aug. 2001.  
Physica B: Cond. Matter, Vol. 316-317, 21 (2002).
1165. Optical Properties of Wurtzite GaN Parallel and Perpendicular to the c-Axis  
C. Cobet, N. Esser, J.T. Zettler, W. Richter, P. Walterteit, O. Brandt, K.H. Ploog, S. Peters, N.V. Edwards, O.P.A. Lindqvist, M. Cardona  
Phys. Rev. B **64**, 165203 (2001).
1166. Optical Anisotropy of GaAs Surface Quantum Wells  
L.F. Lastras-Martinez, D. Rönnow, P.V. Santos, M. Cardona, P. Specht, K. Eberl  
Phys. Rev. B, **64**, 245303 (2001).
1167. "Eine Scientometrische Analyse zur wissenschaftlichen Zusammenarbeit zwischen Deutschland und Ungarn"  
M. Cardona and W. Marx  
Workshop: German-Hungarian Scientific Collaboration: Present and Future, (Stuttgart, 2000), IFA-Dokumente **1**, 19 (2001), Institut für Auslandsbeziehungen, Stuttgart, Ed. K.-J. Maaß.
1168. Effects of Electron-Phonon Interaction on the Optical Response of Semiconductors  
in: Electrons and Photons in Solids, a volume in honour of Franco Bassani  
M. Cardona  
Scuola Normale Superiore, Ann. Scuola Normale Superiore, Pisa, Cl. Sci. (**4**), p.25 (2001).
1169. Renormalization of the Optical Response of Semiconductors by Electron-Phonon Interaction  
M. Cardona  
phys. stat. sol.(a) **188(4)**, 1209 (2001).
1170. Electron-Phonon Renormalization of the Absorption Edge of the Cuprous Halides  
J. Serrano, Ch. Schweitzer, C.T. Lin, K. Reimann, M. Cardona and D. Fröhlich  
Phys. Rev. B. **65**, 125110 (2002).
1171. Dependence of Excitation Energies of Boron in Diamond on Isotopic Mass  
M. Cardona, Solid State Commun. **121**, 7 (2002).
1172. In-Plane Polarized Collective Modes in Detwinned  $\text{YBa}_2\text{Cu}_3\text{O}_{6.95}$  Observed by Spectral Ellipsometry  
C. Bernhard, T. Holden, J. Humlíček, D. Munzar, A. Golnik, M. Kläser, Th. Wolf, L. Carr, C. Homes, B. Keimer and M. Cardona  
Solid State Commun. **121**, 93 (2002).
1173. Effect of Pseudomorphic Stress on Structure and Transport Properties of Ultrathin  $\text{GdBa}_2\text{Cu}_3\text{O}_7$  Films on (001)  $\text{SrTiO}_3$  and  $\text{NdGaO}_3$   
L.X. Cao, J. Zegenhagen, M. Cardona, C. Giannini, L. De Caro, L. Tapfer  
J. Appl. Phys., **91(3)**, 1265-1271 (2002).
1174. Magnetic-Field-Induced Transitions between Minibands in  $\text{GaAs}/\text{Al}_x\text{Ga}_{1-x}\text{As}$  Superlattices  
V.F. Sapega, D.N. Mirlin, T. Ruf, M. Cardona, W. Winter and K. Eberl  
Semiconductors **35** (4), 447-450 (2001).
1175. *Addendum to:* Effective-Mass Enhancement and Nonparabolicity in Thin Quantum Wells [J.Appl. Phys. **88**, 6945 (2000)]  
M. Städle, K. Hess, T. Ruf and M. Cardona  
J. Appl. Phys. **91 (11)**, 9435 (2002).

1176. Determination of the Phonon Dispersion of Zinc Blende (3C) Silicon Carbide by Inelastic X-Ray Scattering  
 J. Serrano, J. Strempfer, M. Schwoerer-Böhning, M. Cardona, H. Requardt, M. Lorentzen, P. Pavone, W.J. Choyke  
*Appl. Phys. Lett.* **80**, 4360 (2002).
1177. Optical Properties of the Organic Metal (BEDT-TTF)<sub>4</sub>[Ni(dto)<sub>2</sub>]  
 E. Griesshaber, P. Haas, J. Thoms, A. Darjushkin, B.P. Gorshunov, M. Dressel, D. Schweitzer, R.K. Kremer, A. Golnik, C. Bernhard, M. Cardona, T. Klaus and W. Strunz  
*Synthetic Metals* **120**, 731-732 (2001).
1178. Electron-Phonon Effects on the Direct Band Gap in Semiconductors: LCAO Calculations  
 D. Olgun, M. Cardona and A. Cantarero  
*Solid State Commun.* **122**, 575-589 (2002).
1179. Pressure and Temperature Investigation of Raman Phonons in Isotopic Cuprous Halides  
 J. Serrano, M. Cardona, T.M. Ritter, B. Weinstein, A. Rubio and C.T. Lin  
 26th Int. Conf. on Physics of Semiconductors 2002 (ICPS-26), Edinburgh, UK,  
 Series 171, Index P.40 (CD only), Editors A.R. Long and J.H. Davies, IOP Publ., Bristol, UK  
 (2003).
1180. First- and Second-Order Raman Spectra of Galena (PbS)  
 G.D. Smith, S. Firth, R.J.H. Clark, and M. Cardona  
*J. Appl. Phys.* **92**, 4375 (2002).
1181. Photoluminescence Studies of Isotopically Enriched Silicon: Isotopic Effects on Indirect Electronic Band Gap and Phonon Energies  
 D. Karaiskaj, M.L.W. Thewalt, T. Ruf, M. Cardona and M. Konuma  
*Solid State Commun.* **123**, 87 (2002).
1182. Evangelos Anastassakis: Scientist, Colleague and Friend  
 M. Cardona  
 Symposium Dedicated to the Memory of Prof. E. Anastassakis (1938-2000)  
 Athens, 2001, Eds. Manuel Cardona, W. Richter and Y.S. Raptis  
 Publ. Natl. Techn. Univ. of Athens, School of Appl. Mathematics and Physics, pg. 24 (2004).  
 (cond-mat/0204606).
1183. Intrinsic Acceptor Ground State Splitting in Silicon: an Isotopic Effect  
 D. Karaiskaj, M.L.W. Thewalt, T. Ruf, M. Cardona, M. Konuma  
*Phys. Rev. Lett.* **89**, 016401 (2002).
1184. Anharmonic Self-Energy of Phonons: *ab initio* Calculations and Neutron Spin Echo Measurements  
 A. Debernardi, F. de Geuser, J. Kulda, M. Cardona and E.E. Haller  
 26th Int. Conf. on the Physics of Semiconductors (ICPS-26), Edinburgh, UK, 2002, Series 171, (available on CD only, Index F1.5), Editors A.R. Lang and J.H. Davies, Institute of Physics Publ., Bristol, UK (2003).
1185. Photoluminescence Studies of Isotopically-Enriched Silicon  
 D. Karaiskaj, M.L.W. Thewalt, T. Ruf and M. Cardona  
 Proceed. of Shallow Level Centers in Semiconductors (SLCS-10), Warsaw, (2002), Wiley-VCH, Weinheim,  
*phys. stat. solidi (b)* **235**, 63 (2003).
1186. Pressure and Temperature Dependence of Raman Phonons in Isotopic  $\gamma$ -CuI  
 J. Serrano, M. Cardona, T.M. Ritter, B.A. Weinstein, A. Rubio and C.T. Liu  
*Phys. Rev. B* **66**, 245202 (2002).

1187. Dependence of Phonon Widths on Pressure and Isotopic Mass: ZnO  
 J. Serrano, F. Widulle, A.H. Romero, A. Rubio, R. Lauck and M. Cardona  
 Proceed. X. Int. Conf. on High-Pressure Semiconductors in Physics 2002, Guilford, UK (2002), physica status solidi (b) **235**, 260 (2003), guest editor: Ben Murdin, publishers Wiley-VCH, Weinheim, Germany.
1188. The Acceptor Ground State Splitting in Silicon  
 D. Karaiskaj, G. Kirzcenow, M.L.W. Thewalt, R. Buczko, M. Cardona and T. Ruf  
 Proceed. Int. Conf. on Physics of Semiconductors (ICPS-26) Edinburgh, UK 2002, Eds. A.R. Long and J.H. Davies, Institute of Physics, **171** Bristol (2003).
1189. Lattice Dynamics of 4H-SiC by Inelastic X-Ray Scattering  
 J. Serrano, J. Strempfer, M. Cardona, M. Schwoerer-Böhning, H. Requardt, M. Lorenzen, B. Stojetz, P. Pavone, and W.J. Choyke  
 Proc. European Conf. on Silicon Carbide and Related Materials (ECSCRM 2002), Linköping, Sweden, Mater. Sci. Forum **433-436** 257 (2003).
1190. Leopoldo Maximo Falicov  
 M. Cardona, M.L. Cohen and S.G. Louie  
 Chapter to appear in Biographical Memoirs, National Academies of Science, Washington, D.C., Vol. 83 (2003), pp. 1-17.
1191. William Paul: a Scientist, a Teacher and a Friend  
 M. Cardona  
 phys. Stat. solidi (b), **235**, 211-220 (2003)  
 Proceed. X. Int. Conf. on High-Pressure Semiconductor Physics, Guilford, UK (2002)  
 Publ. Wiley-VCH, Weinheim, Guest Editor: Ben Murdin.
1192. Origin of the Residual Acceptor Ground State Splitting in Silicon  
 D. Karaiskaj, G. Kirczenow, M.L.W. Thewalt, R. Buczko and M. Cardona  
 Phys. Rev. Lett. **90**, 016404-016408 (2003).
1193. Raman-Active c-Axis Plasma Modes in Multilayer High-T<sub>c</sub> Cuprate Superconductors  
 D. Munzar and M. Cardona  
 Phys. Rev. Lett. **90**, 077001-077005 (2003).
1194. Dispersive Phonon Lindewidths: The E<sub>2</sub> Phonons of ZnO  
 J. Serrano, F.J. Manjón, A.H. Romero, F. Widulle, R. Lauck and M. Cardona  
 Phys. Rev. Lett. **90** 055510-055514 (2003).
1195. Effect of Isotopic Mass of Gallium on the Indirect Gap of GaP  
 T.A. Meyer, D. Karaiskaj, M.L.W. Thewalt and M. Cardona  
 Solid State Commun. **126**, 119-123 (2003).
1196. The Impact of *Solid State Communications* in View of the ISI Citation Data  
 W. Marx and M. Cardona  
 Solid State Commun. **127**, 323-336 (2003).
1197. Dependence of the Ionization Energy of Shallow Donors and Acceptors in Silicon on the Host Isotopic Mass  
 D. Karaiskaj, T.A. Meyer, M.L.W. Thewalt, M. Cardona  
 Phys. Rev. B **68**, 121201-12105 (2003).
1198. Effect of Isotopic Mass on the Photoluminescence Spectra of Zinc Oxide  
 F.J. Manjón, M. Molar, M.A. Hernández-Fenollosa, B. Mari, R. Lauck and M. Cardona  
 Solid State Commun. **128**, 35-39 (2003).

1199. Isotopic Disorder in Ge single Crystals Probed with  $^{73}\text{Ge}$  NMR  
 S.V. Verkhovskii, A. Yu. Yakubovsky, B.Z. Malkin, S.K. Saikin, M. Cardona, A. Trokiner, and V.I. Ozhogin  
*Phys. Rev. B* **68**, 104201-104211 (2003).
1200. Self-Energy of Zone Boundary Phonons in Semiconductors: *ab initio* Calculations versus Neutron Spin Echo Measurements  
 J. Kulda, A. Debernardi, M. Cardona, F. De Geuser, E.E. Haller  
*Phys. Rev. B* **69**, 045209 (2004).
1201. Ultrahigh Resolution Photoluminescence Spectroscopy of Isotopically Pure Silicon  
 M.L.W. Thewalt, D. Karaiskaj, T. Ruf and M. Cardona  
 26th Int. Conf. on Physics of Semiconductors 2002, Edinburgh, UK, Series 171, pp. 101-108, Eds. A.R. Long and J.H. Davies, Publ. IOP-Bristol (2003).
1202. Phonon Widths versus Pressure  
 M. Cardona  
 Proc. of Besson Colloquium – Matter Under Extreme Conditions, Paris, 2003,  
*High Pressure Research*, **24(1)**, 17 (2004), Publ. Taylor & Francis Ltd., UK, Ed. S. Klotz.
1203. Nachruf auf Prof. Dr. Ludwig Genzel  
 M. Cardona, R. Geick and K. Renk  
*Physik Journal* **2 (9)**, 62 (2003).
- 1203a Prof. Dr. Ludwig Genzel – Obituary  
 J.W. Powell and M. Cardona, *Physics Today* **56**, 83-83 (2003).
1204. Pressure Measurements of TO-Phonon Anharmonicity in Isotopic ZnS  
 R. Tallman, T.M. Ritter, B.A. Weinstein, A. Canterero, J. Serrano, R. Lauck and M. Cardona  
 Proc. 2003 Int. Conf. on II-VI Semiconductors, *phys. stat. sol. (b)* **241 (3)**, 491-494 (2004).
1205. Raman Scattering in  $\beta$ -ZnS  
 J. Serrano, A. Cantarero, M. Cardona, N. Garro, R. Lauck, R.E. Tallman, T.M. Ritter and B.A. Weinstein  
*Phys. Rev. B* **69**, 014301 (2004).
1206. Sulfur Isotope Effects on Excitonic Spectra of CdS  
 T.A. Meyer, M.L.W. Thewalt, M. Cardona and R. Lauck  
*Phys. Rev. B* **69**, 115214 (2004).
1207. Isotope Effects on the Optical Spectra of Semiconductors  
 M. Cardona and M.L.W. Thewalt  
*Rev. Mod. Phys.* **77**, 1173–1224 (2005).
1208. Blasts from the Past  
 Werner Marx and Manuel Cardona  
 Comment in: Forum: Physics World, (Feb. 2004), pg.14.
1209. Effect of N Isotopic Mass on Photoluminescence and Cathodoluminescence Spectra of Gallium Nitride  
 F.J. Manjón, M.A. Hernández-Fenollosa, B. Marí, S.F. Li, C.D. Poweleit, A. Bell, J. Menéndez and M. Cardona  
*Europ. Phys. Journ. B* **40** (2004) 453-458.
1210. Pressure Dependence of the Lattice Dynamics of ZnO: An *ab initio* Approach  
 J. Serrano, A.H. Romero, F.J. Manjón, R. Lauck, M. Cardona and A. Rubio  
*Phys. Rev. B* **69**, 094306 (2004).

1211. Cardona, Chamberlain, Marx,  
 Comment: The History of the Stretched Exponential Function  
 submitted Phys. Rev. Lett., (published under Nr. 1267)
1212. The Temperature Dependence of the Energy Gap of Semiconductors in the Low-Temperature Limit  
 M. Cardona, T.A. Meyer and M.L.W. Thewalt  
 Phys. Rev. Lett. **92**, 196403 (2004).
1213. Impurity Absorption Spectroscopy in  $^{28}\text{Si}$ :  
 The Importance of Inhomogeneous Isotope Broadening  
 D. Karaiskaj, J.A.H. Stotz, T. Meyer, M.L.W. Thewalt and M. Cardona  
 Phys. Rev. Lett. **90**, 186402-186406 (2003).
1214. Wissenschaftliche Beziehungen Katalonien-Deutschland – besonders mit Baden Württemberg  
 M. Cardona  
 in: Katalonien – Tradition und Moderne, Hsg. R. Sevilla, M. Domingo, J. Jané Horlemann Verlag, Bad Honef, 2004.
1215. Isotopic Dependence of the Heat Capacity of c-C, Si and Ge: an *ab initio* Calculation  
 M. Sanati, S.K. Streicher and M. Cardona  
 Solid State Commun., **131**, 229-233 (2004).
1216. Thermal Conductivity of Isotopically Enriched  $^{28}\text{Si}$ : Revisited  
 R.K. Kremer, K. Graf, M. Cardona, G.G. Devyatkh, A.V. Gusev, A.M. Gibin, A.V. Inyushkin, A.N. Taldenov, H.-J. Pohl  
 Solid State Commun., **131**, 499 (2004).
1217. Effects of Pressure on the Phonon-Phonon and Electron-Phonon Interaction in Semiconductors  
 M. Cardona  
 phys. stat. sol.(b) **241** 3128 (2004).
1218. Long-Lived Optical Phonons in ZnO Studied with Impulsive Stimulated Raman Scattering  
 C. Aku-Leh, J. Zhao, R. Merlin, J. Menéndez, M. Cardona  
 Phys. Rev. B **71**, 205211-205215 (2005).
1219. Effect of Isotopic Mass on Photoluminescence Spectra of  $\beta$ -Zinc Sulfide  
 F.J. Manjón, M. Mollar, B. Mari, N. Garro, A. Cantarero, R. Lauck, M. Cardona  
 Solid State Commun. **133**, 253 (2005).
1220. Anharmonic Interactions in ZnO Probed with Impulsive-Stimulated Raman Scattering  
 C. Aku-Leh, J. Zhao, R. Merlin, J. Menéndez, M. Cardona  
 Proc. Int. Conf. on Physics of Semiconductors (ICPS-27), Flagstaff, Arizona, July 2004,  
 Eds. J. Menéndez and C.G. Van de Walle  
 Publ. Amer. Inst. Physics **772**, 1228 (2005).
1221. Pressure-Raman Study of Resonant TO( $\Gamma$ )-Two-Phonon Decay Processes in ZnS: Comparison of Three Isotopic Compositions  
 R.E. Tallman, J. Serrano, A. Cantarero, N. Garro, R. Lauck, T.M. Ritter, B.A. Weinstein und M. Cardona  
 Proc. High-Pressure on Semiconductor of Physics (HPSP) Aug. 2004, Berkeley, Calif.  
 phys. stat. sol. (b) **241** (14), 3143 (2004).
1222. Progress in Semiconductor Spectroscopy Using Isotopically Enriched Si  
 M.L.W. Thewalt, T.A. Meyer, D. Karaiskaj, M. Cardona, E.E. Haller, J.W. Ager III,  
 and H. Riemann

Proc. Int. Conf. on Physics of Semiconductors (ICPS-27), Flagstaff, Arizona  
July 26-30, 2004, Eds. J. Menéndez and C.G. Van de Walle  
Publ. Amer. Inst. of Physics **772**, (2005) 67.

1223. Conference Report on: 11th Int. Conf. on High-Pressure Semiconductor Physics (HPSP-11),  
2-5 August, 2004, Berkeley, Calif.  
M. Cardona  
*phys. stat. solidi (b)* **241** (2004) 2655-2657.
1224. Electron-Phonon Interaction in Tetrahedral Semiconductors  
M. Cardona  
*Solid State Commun.* **133** (2005) p. 3-18.
1225. Verwechselt, vergessen, wieder gefunden –  
Referenzen: das fehlerhafte Gedächtnis der Wissenschaft(ler)  
M. Cardona and W. Marx  
*Physik Journal* **3**(11), (2004) 1-3.
1226. Measurements of the Heat Capacity of Diamond with Different Isotopic Compositions  
M. Cardona, R.K. Kremer, S.K. Estreicher, T.R. Anthony  
*Solid State Commun.* **133**, 465 (2005).
1227. The Disaster of Nazi-Power in Science as Reflected by Some Leading Journals and Scientists  
in Physics: A Bibliometric Study  
M. Cardona and W. Marx  
*Scientometrics*, **64**, 313-324 (2005).
1228. Heat Capacity of Isotopically-Enriched  $^{28}\text{Si}$ ,  $^{29}\text{Si}$  and  $^{30}\text{Si}$  in the Temperature Range  
 $4\text{K} < T < 100\text{ K}$   
A. Gibin, G.G. Devyatkh, A.V. Gusev, R.K. Kremer, M. Cardona, H.-J. Pohl  
*Solid State Commun.* **133**, 569 (2005).
1229. Effect of Isotope Substitution and Doping on the Raman Spectrum of Galena (PbS)  
R. Sherwin, R.J.H. Clark, R. Lauck and M. Cardona  
*Solid State Commun.*, **134** 565 (2005).
1230. Measurement of the Surface Strain Induced by Reconstructed Surfaces of GaAs (001) Using  
Photoreflectance- and Reflectance-Difference Spectroscopies  
L.F. Lastras-Martínez, J.M. Flores, Camacho, A. Lastras-Martínez, R.E. Balderas-Navarro,  
M. Cardona  
*Phys. Rev. Lett.* **96** 047402-047404 (2006).
1231. Electron-Phonon Interaction Effects on the Dielectric Response of Si  
M. Cardona and L.F. Lastras-Martínez  
*Superficies y Vacío* **18**, 7-12 (2005).
1232. Albert Einstein as the Father of Solid State Physics  
M. Cardona  
Conf. 1. Anys. d'Herència Einsteiniana, València, Spain 2006  
Ed. P. González Marhuenda, Publ. Càtedra de Divulgació de la Ciència, Univ. de València,  
Spain, pp. 85-112 (2006)(in English).
1233. Heat Capacity of  $\alpha$ -GaN: Isotope Effects  
R.K. Kremer, M. Cardona, E. Schmitt, J. Blumm, S.K. Estreicher, M. Sanati, M. Bockowski,  
I. Grzegory, T. Suski and A. Jezowski  
*Phys. Rev. B – Cond. Matter* **72**, 075209 (2005).

1234. Heat Capacity of ZnO: Isotope Effects  
 J. Serrano, R.K. Kremer, M. Cardona, G. Siegle, A.H. Romero, R. Lauck  
*Phys. Rev. B* **73**, 094303 (2006).
1235. VUV-Ellipsometrie on GaN: Probing Conduction Band Properties by Core Level Excitations  
 N. Esser, M. Rakel, C. Cobet, W.G. Schmidt, W. Braun and M. Cardona  
*phys. stat. sol. (b)* **242**, 2601 (2005).
1236. Martin Stutzmann: Editor, Teacher, Scientist and Friend  
 M. Cardona  
*phys. stat. sol. (a)* **202**, p. 345 (2005); *phys. stat. sol. (c)*, Conf. 2, pp. 731-732 (2005).
1237. Vitaly L. Ginzburg: a Bibliometric Study  
 M. Cardona and W. Marx  
*J. Superconduct. and Novel Magnet.* **19**, 459-466 (2006).
1238. Georg(e) Placzek: a Bibliometric Study of His Scientific Production  
 M. Cardona and W. Marx  
 Conference Band, Vol. 94, pp. 22  
 see <http://arxiv.org/abs/physics/0601113v2> (2007).
1239. Superconductivity in Diamond Electron-Phonon Interaction and the Zero-Point Renormalization of Semiconducting Gaps  
 M. Cardona  
*Science and Technology of Advanced Materials* **7S1**, 60-66 (2006)  
 (doi: 10.1016/j.stam.2006.03.009).
1240. Preface in: "Thus Spoke Galileo"  
 M. Cardona  
 Eds. A. Frova and M. Marenzana, Oxford Univ. Press, p. 512 (2006).
1241. Isotope Effect on Optical Phonons  $\text{YBa}_2\text{Cu}_4\text{O}_8$  Studied by Far-Infrared Ellipsometry and Raman Scattering  
 A. Trajnerowicz, A. Golnik, C. Bernhard, L. Machtoub, C. Ulrich, J.L. Tallon and M. Cardona  
*Phys. Rev. B* **74**, 104513 (2006).
1242. Effects of Sulfur Isotopic Composition on the Band Gap of PbS  
 H.J. Lian, A. Yang, M.L.W. Thewalt, R. Lauck, M. Cardona  
*Phys. Rev. B* **73**, 233202 (2006).
1243. The Posthumous Impact of Paul Drude  
 M. Cardona and W. Marx  
*Annalen der Physik* **15**, 461-468 (2006).
1244. Reconstruction-Induced Surface Strain in GaAs (001) Surfaces Characterized by Reflectance Modulated Spectroscopies  
 L.F. Lastras-Martínez, J.M. Flores-Camacho, R.E. Balderas-Navarro, A. Lastras-Martínez, and M. Cardona  
 $28^{\text{th}}$  Int. Conf. on Physics of Semiconductors (ICPS-2006), Vienna, July 2006,  
 Eds. Wolfgang Jantsch and Friedrich Schäffler,  
 AIP Conf. Proceed., Vol. 893, p. 11 (2007).
1245. Phonons and Phonon-Mixing in ZnSe Isotopic Crystals, Pressure-Cycled Domains and Nanorods  
 R.E. Tallman, B.A. Weinstein, H. Zeng, W. Shi, R. Lauck and M. Cardona  
 $28^{\text{th}}$  Int. Conf. on Physics of Semiconductors (ICPS-2006), Vienna, July 2006,  
 Eds. Wolfgang Jantsch and Friedrich Schäffler,  
 AIP Conf. Proceed., Vol. 893, p. 181 (2007).

1246. Foreword in: "The Theory of Defects in Semiconductors  
Topics in Applied Physics  
M. Cardona  
Eds. S. Estreicher and D. Drabold, Springer Verlag, Berlin, **104**, 1-10 (2007).
1247. Effect of Reconstruction-Induced Strain on the Reflectance Difference Spectroscopy of GaAs (001) around  $E_1$  and  $E_1 + \Delta_1$  Transitions  
L.F. Lastras-Martínez, J.M. Flores-Camacho, R.E. Balderas-Navarro, M. Chavira-Rodríguez, A. Lastras-Martínez, M. Cardona  
Phys. Rev. B **75**, 235315-6 (2007).
1248. Isotopic Mass-Dependence of A, B and C Excitonic Band Gaps in ZnO at Low Temperature  
S. Tsoi, X. Lu, A.K. Ramdas, H. Alawadhi, M. Grimsditch, M. Cardona and R. Lauck  
Phys. Rev. B **74**, 165203 (2006).
1249. The Phonon Dispersion of Wurtzite-ZnO Revisited  
J. Serrano, F.J. Manjón, A.H. Romero, A. Ivanov, R. Lauck, M. Cardona and M. Krisch  
phys. stat. sol. (b), **244**, 1478-1482 (2007).
1250. "La Sociedad Max Planck Como Modelo de Organización para el Fomento de la Investigación Básica"  
Manuel Cardona  
in: La Universidad Como Institución del Conocimiento y de la Innovación,  
Publ. Asociación Alexander von Humboldt de España, **4** pp. 25-48 (2007).
1251. *Light Scattering in Solids IX.—Novel Materials and Techniques*  
M. Cardona and R. Merlin  
C.E. Ascheron (Ed.) Springer: Topics in Applied Physics, Vol. 108, pp. 1-14 (2007).
1252. Concluding Remarks and Conference Report  
M. Cardona  
12<sup>th</sup> Int. Conf. on High-Pressure in Semiconductor Physics (HPSP-12)  
Barcelona, July 31-Aug. 3, 2006  
phys. stat. solidi (b) **244**, 481-487 (2007).
1253. Effect of Temperature on Isotopic Mass Dependence of Excitonic Band Gaps in Semiconductors: ZnO  
H. Alawadhi, S. Tsoi, X. Lu, A.K. Ramdas, M. Grimsditsch, M. Cardona, R. Lauck  
Phys. Rev. B. **75**, 205207 (2007).
1254. The Citation Impact Outside References – Formal vs. Informal Citations  
W. Marx and M. Cardona  
submitted to J. Superconductivity 2007.
1255. The  $E_1$  and  $E_1 + \Delta$  Interband Optical Transitions of Germanium and Zincblende-Type Semiconductors  
M. Cardona  
in: "Highlights on Spectroscopies of Semiconductors and Nanostructures", in honour of Angiolino Stella, Societ Italiane di Fisiologia (SIF) Bologna, Vol. 94 (2007).
1256. Optical Detection and Ionization of Donors in Specific Electronic and Nuclear Spin States  
A. Yang, M. Steger, K. Karaiskaj, M.L.W. Thewalt, M. Cardona, K.M. Itoh, et al.  
Phys. Rev. Lett. **97**, 227401-4 (2006).

1257. Discurso: el desarrollo de las ciencias experimentales en España durante el siglo xx: un breve análisis cualitativo y cuantitativo  
 M. Cardona  
 in: Colección Publicaciones Institucionales, Series Honoris Causa/6  
 Publ. Universidad de La Laguna, Tenerife, Spain (2006) pp. 35-51.
1258. Photoluminescence and Photocurrent Detection of an Impurity Nuclear Spin:  
 $^{31}\text{P}$  in Highly Enriched  $^{28}\text{Si}$   
 M.L.W. Thewalt, A. Yang, M. Steger, D. Karaiskaj, M. Cardona, K.M. Itoh, et al.  
 4th Int. Conf. on Physics and Applications of Spin-Related Phenomena in Semiconductors (PASPS-IV), Sendai, Japan, 2006  
 phys.stat.sol.(c) 2007; did not appear in proceed.
1259. Direct Observation of the Donor Nuclear Spin in a Near-Gap Bound Exciton Transition:  
 $^{31}\text{P}$  in Highly Enriched  $^{28}\text{Si}$   
 M.L.W. Thewalt, A. Yang, M. Steger, D. Karaiskaj, M. Cardona, H. Reimann, et al.  
*J. Appl. Phys.* **101**, 081724-5 (2007).
1260. Shallow Impurity Absorption Spectroscopy in Isotopically-Enriched Silicon  
 M. Steger, A. Yang, D. Karaiskaj, M.L.W. Thewalt, E.E. Haller, J.W. Ager III,  
 M. Cardona, et al.  
 28<sup>th</sup> Intl. Conf. on Physics of Semiconductors, Vienna (2006),  
 AIP Conf. Proceed. Vol. **893**, pp. 231-232 (2007).
1261. Effect of the Spin-Orbit Interaction on the Thermodynamic Properties of Crystals:  
 The Specific Heat of Bismuth  
 L.E. Díaz-Sánchez, A.H. Romero, M. Cardona, R.K. Kremer and X. Gonze  
*Phys. Rev. Lett.* **99**, 165504-4 (2007).
1262. Surface Strain Contributions to the Lineshapes of Reflectance Difference Spectra for One-Electron and Discrete-Exciton Transitions  
 L.F. Lastras-Martínez, J. Ortega-Gallegos, R.E. Balderas-Navarro, J.M. Flores-Camacho, M.E. Chavira-Rodríguez, A. Lastras-Martínez, M. Cardona  
 Proceed. OSI-7 Conf., Wyoming, USA 2007,  
 phys. status solidi (c) (2007); did not appear in proceedings
1263. High-Resolution Photoluminescence of Sulfur- and Copper-Related Isoelectronic Bound Excitons in Highly Enriched  $^{28}\text{Si}$   
 A. Yang, M. Steger, M.L.W. Thewalt, M. Cardona, H. Reimann, N.V. Abrosimov,  
 M.F. Churbanov, A.V. Gusev, A.d. Bulanov, I.D. Kovalev, A.K. Kaliteevskii, O.N. Godisov,  
 P. Becker, H.-J. Pohl, J.W. Ager III, E.E. Haller  
 Proceed. Int. Conf. on Defects in Semiconductors (ICDS-24), Albuquerque, USA, 22-24 July 2007  
 Eds. S.K. Estreicher, A.F. Wright, M. Holtz and C.H. Seager  
*Physica B* **401-402**, 593-596 (2007).
1264. Can Highly Enriched  $^{28}\text{Si}$  Reveal New things About Old Defects?  
 M.L.W. Thewalt, M. Steger, A. Yang, N. Stavrias, M. Cardona, H. Reimann, N.V. Abrosimov,  
 M.F. Churbanov, A.V. Gusev, A.D. Bulanov, I.D. Kovalev, A.K. Kaliteevskii, O.N. Godisov,  
 P. Becker, H.-J. Pohl, J.W. Ager III, E.E. Haller  
 Int. Conf. on Defects in Semiconductors (ICDS-24), Albuquerque, USA, 22-24 July 2007  
 Eds. S.K. Estreicher, A.F. Wright, M. Holtz and C.H. Seager  
*Physica B* **401-402**, 587-592 (2007).

1265. Impurity Absorption Spectroscopy of the Deep Double Donor Sulfur in Isotopically Enriched Silicon  
 M. Steger, A. Yang, M.L.W. Thewalt, M. Cardona, H. Riemann, N.V. Abrosimov, M.F. Churbanov, A.V. Gusev, A.D. Bulanov, I.D. Kovalev, A.K. Kaliteevskii, O.N. Godisov, P. Becker, H.-J. Pohl, J.W. Ager III, E.E. Haller  
 Proceed. Int. Conf. on Defects in Semiconductors (ICDS-24), Albuquerque, 22-24 July 2007  
 Eds. S.K. Streicher, A.F. Wright, M. Holtz and C.H. Seager  
*Physica B* **401-402**, 600-603 (2007).
1266. Heat Capacity of PbS: Isotope Effects  
 M. Cardona, R.K. Kremer, R. Lauck, G. Siegle, J. Serrano, A.H. Romero  
*Phys. Rev. B* **76**, 075211-7 (2007).
1267. Comment: The History of the Stretched Exponential Function  
 M. Cardona, R.V. Chamberlin and W. Marx  
*Annalen der Physik* (Leipzig), **16** No.12, 842-845 (2007) /DOI 10.1002/andp.200710269.
1268. Anatomy of the ICDS Series: A Bibliometric Analysis  
 M. Cardona and W. Marx  
*Physica B* **401-402**, 1-6 (2007).
1269. Specific Heat of Sb: Isotopic and Spin-Orbit Effects from Measurements and *ab initio* Calculations  
 J. Serrano, R.K. Kremer, M. Cardona, G. Siegle, L.E. Diaz-Sánchez, A.H. Romero  
*Phys. Rev. B* **77**, 054303-5 (2008).
1270. Temperature-Dependent Raman Scattering of Natural and Isotopically Substituted PbS  
 P.G. Etchegoin, M. Cardona, R. Lauck, R.J.H. Clark, J. Serrano, A.H. Romero  
*phys. stat. solidi (b)* **245** (6), 1125-1132 (2008).
1271. Path-Integral Molecular Dynamics Simulation of 3C-SiC  
 R. Ramirez, C.P. Herrero, E.R. Hernández, M. Cardona  
*Phys. Rev. B* **77** 045210-12 (2008).
1272. High-Resolution Photoluminescence Measurement of Isotopic Mass Dependence of the Lattice Parameter of Silicon  
 A. Yang, M. Steger, H.J. Lian, M.L.W. Thewalt, M. Uemura, A. Sagara, K.M. Itoh, E.E. Haller, J.W. Ager III, S.A. Lyon, M. Konuma, M. Cardona  
*Phys. Rev. B* **77**, 113203 (2008).
1273. Strain-Induced Conduction Band Spin Splitting in GaAs from First Principles Calculations  
 A.N. Chantis, M. Cardona, N.E. Christensen D.L. Smith, M. van Schilfgaarde, T. Kotani, A. Svane, R.C. Albers  
*Phys. Rev. B* **78**, 075208 (2008).
1274. Lattice Properties of PbX (X= S, Se, Te): Experimental Studies and *ab initio* Calculations Including Spin-Orbit Effects  
 A.H. Romero, M. Cardona, R.K. Kremer, R. Lauck, G. Siegle, J. Serrano, X.C. Gonze  
 submitted to *Phys. Rev. B*. (2008).

updated 27.8.08