

PUBLICATIONS - A. A. LUCAS.

1. A.A. Lucas.
Long-Range Dipole-Dipole Interaction in Rare-Gas Crystals.
Physics Letters, 12, 325 (1964).
2. A.A. Lucas, J. Heinrichs.
Collective Aspects of the Van der Waals Interaction in Molecular Crystals.
Bull. of the Belgian Phys. Soc. 1, 55 (1964).
3. F. Brouers, A.A. Lucas.
Shielding of a Fixed Charge and Positron Annihilation in Metals.
J. Phys. Soc. Japan, 19, 2531 (1964).
4. A.A. Lucas.
Contributions Electrostatiques Collectives et Corrections Radiatives à l'Energie de Van der Waals des Cristaux Moléculaires.
Thèse de doctorat 1966.
5. A.A. Lucas.
Collective Contributions to the Long-Range Dipolar Interaction in Rare-Gas Crystals.
Physica, 35, 353 (1967).
6. A.A. Lucas.
Retardation Effects on the Limiting Phonon Frequencies of Finite Size Ionic Crystals.
Phys. Rev. 162, 801 (1967).
7. A.A. Lucas.
Phonon Modes of an Ionic Crystal Slab.
J. Chem. Phys. 48, 3156 (1968).
8. A.A. Lucas.
Contribution of the Electrostatic Potential to the LEED intensities at Alkali-Halides Distorted Surfaces.
Surf. Sci., 11, 19 (1968)
9. M.L. Glasser, A.A. Lucas.
The Influence of Band Structure on the Thermal Properties of Metals.
Am. J. Phys. 36, 445 (1968).
10. A.A. Lucas.
Self-Consistent Polarisation Waves and Dispersion Forces in Crystals.
Phys. Lett. 26A, 640 (1968).
11. A.A. Lucas.
On the Many-Body Van der Waals Forces between Macroscopic Bodies.
Physica, 39, 5 (1968).
12. A.A. Lucas.
On the Effect of Many-Body Van der Waals Forces on the Lattice Dynamics of Rare-Gas Crystals.
Phys. Rev. 176, 1093 (1968).
13. A.A. Lucas, E. Kartheuser.
Energy Loss Spectrum of Fast Electrons in a Dielectric Slab.

14. A.A. Lucas, J. Schmit.
Soft Ferroelectric Vibrational Modes in KDP.
Proceedings of the Conference on "Optical Properties of Solids", International Center for Advanced Studies, Chania, Greece (1969).
15. A.A. Lucas, E. Kartheuser, R. Badro.
Quantum Theory of Electron-Optical Phonon Interaction in Ionic Crystal Films.
Solid State Comm. 8, 1075 (1970).
16. A.A. Lucas, E. Kartheuser, R. Badro.
Electron-Phonon Interaction in Dielectric Films. Application to Electron Energy Loss Spectra.
Phys. Rev. B2, 2488 (1970).
17. J. Schmit, A.A. Lucas.
On the Ion Electronic Polarisabilities in a class of non-cubic AB₂ Halides Crystals.
J. Phys. C. Vol. 4, 746 (1971).
18. A.A. Lucas, M. Sunjic.
Quantum Theory of Electron Energy Loss Spectra in Thin Films.
Solid State Comm. 8, 1889 (1970).
19. M. Sunjic, A.A. Lucas.
Multiple Plasmon Excitations by a Fast Electron in Thin Films.
Phys. Rev. 3, 719 (1971).
20. E. Drauglis, C.M. Allen, A.A. Lucas.
An Ordered Liquid Model of Boundary Lubrication Films, Special Discussions of the Faraday Society, No. 1 (1970)
21. A.A. Lucas, M. Sunjic.
Fast Electron Spectroscopy of Surface Excitations.
Phys. Rev. Letters, 26, 229 (1971).
22. A.A. Lucas.
Plasmon Effects in Field Ion Emission.
Phys. Rev. Letters, 26, 813 (1971).
23. A.A. Lucas, M. Sunjic.
Fast Electron Spectroscopy of Collective Excitations in Solids.
Progress in Surface Science, Vol. 2, part 2, edited by S.G. Davison, Pergamon (1971).
24. A.A. Lucas.
Ion Energy Distributions in Field Ion Microscopy.
Phys. Rev. B4, 2939 (1971).
25. A.A. Lucas, M. Sunjic.
Excitation of Collective Modes in Electron-Solid and Ion-Solid Scattering.
J. Vac. Sci. & Technology, Vol. 9, 425 (1972).
26. A.A. Lucas, P.H. Cutler.
Thermal Field Emission as a Mechanism for Infra-Red Laser Light Detection in Metal Whisker Diode.
Solid State Comm. 13, 1181-1184 (1972).

27. M. Thomas, M. Sunjic, A.A. Lucas.
Emission of Radiation by Charged Particles Reflected from Solid Surfaces.
Solid State Comm. 10, 1181-1184 (1972).
28. A.A. Lucas, M. Sunjic.
Coherent Excitation of Surface Plasmons by Charged-Particle Scattering at Metal Surfaces.
Physics Letters, 38A, 413 (1972).
29. M. Sunjic, A.A. Lucas.
Ispitivanje Tankih Slojeva Brzim Elektronima.
Jugosovenski Komitet za vakuumsku tehnicku, Bilten 12, p. 193 (1971)
30. A.A. Lucas, M. Sunjic.
Spectroscopy of Surface Collective Excitations.
ICTP Proceedings, Trieste (1972).
31. A.A. Lucas, M. Sunjic.
Dynamical Screening Effects in Ion-Metal Surface Scattering.
Surface Sci., 32, 439 (1972).
32. J. Schmit, A.A. Lucas.
Plasmon Theory of the Surface Energy of Metals.
Solid State Comm. 11, 415 (1972).
33. J. Schmit, A.A. Lucas.
Plasmon Theory of the Surface Energy of Metals. II. Transition Metals.
Solid State Comm. 11, 419 (1972).
34. J.W. Gadzuk, A.A. Lucas.
Field Emission Tails and Tunneling Lifetimes.
Phys. Rev. B 7, 4770 (1973).
35. A.A. Lucas.
Dispersion Energy of Void Clusters in Irradiated Metals.
Physics Letters, 41A, 375 (1972).
36. A.A. Lucas.
Plasmon Cohesive Energy of Voids and Void Lattices in Irradiated Metals.
Phys. rev. B 7, 3527 (1973).
37. A.A. Lucas.
Fundamental Processes in Particle and Photon Interactions with Surfaces.
Proceedings of Sixth Eslab Symposium on Photon and Particle Interactions with Surfaces in Space, Noordwijk, 1972, D. Reidel, Dordrecht, 1973.
38. M. Sunjic, G. Toulouse, A.A. Lucas.
Dynamical Corrections to the Image Potential.
Solid State Comm. 11, 1629 (1972).
39. A.A. Lucas.
Continuum Surface Waves and Surface Energy.
Collective Phenomena, 1, 1 (1973).
40. A.A. Lucas.
Collective Cohesion of Macroscopic Surfaces.

Nobel Symposia-Medicine and Natural Sciences, Vol. 24, Academic Press (1973).

41. M. Thomas, M. Sunjic, D. Juretic, A.A. Lucas.
Coherent Surface Bremmstrahlung in LEED and RHEED.
Physical Rev. B, May (1974).
42. M. Sunjic, D. Sokcevic, A.A. Lucas.
Inelastic Effects in X-Ray Photoelectron Spectroscopy.
Proceedings of the Conference "Electron Spectroscopy", Namur (Avril 1974).
43. A.A. Lucas.
Introduction to Collective Excitations in Solids, in "Elementary Excitations in Solids, Molecules and Atoms", Part A, ed. by J. Devreese, A. Kunz and T. Collins, NATO Advanced Study Institute Series, p. 65, Plenum (1974).
44. A.A. Lucas.
Plasmon Cohesion of Metal Surfaces and Dispersion Energy of Void Clusters in Irradiated Metals, in "Polaritons", Edited by E. Burstein and F. de Martini, Pergamon, 1974.
45. M. Schmeits, A.A. Lucas.
Physisorption by Small Solid Particles.
Chemical Physics Letters, 35, 391 (1975).
46. A.A. Lucas, A. Ronveaux, M. Schmeits, F. Delanaye.
Electromagnetic Interaction between Spherical Cavities in Solids.
Physics Letters, 54A, 329 (1975).
47. A.A. Lucas, A. Ronveaux, M. Schmeits, F. Delanaye.
Van der Waals Energy between Voids in Dielectrics.
Physical Review, B12, 5372 (1975).
48. T.E. Sullivan, P.H. Cutler, A.A. Lucas.
Thermal and Field Emission Effects of Laser Radiation on Metal Whisker Diodes.
Surface Science, 54, 561 (1976).
49. A.A. Lucas.
Sur la Tension Superficielle des Métaux.
Revue des Questions Scientifiques, 147, 145 (1976).
50. M. Schmeits, A.A. Lucas.
Physical Adsorption on Small Spherical Particles and Spherical Pores.
J. Chem. Phys. 65, 2901 (1976).
51. M. Sunjic, A.A. Lucas.
On the Phonon Contribution to the X-Ray Photoemission Linewidths in Polar Crystals Films.
Chem. Phys. letters, 42, 462 (1976).
52. P. Clippe, R. Evrard, A.A. Lucas.
Aggregation Effect on the Infrared Adsorption Spectrum of Small Ionic Crystals.
Physical Review B14, 1715 (1976).
53. M. Schmeits, A.A. Lucas.
Physical Adsorption and Surface Plasmons.
Surface Science, 64, 176 (1977).

54. R. Brako, M. Sunjic, A.A. Lucas.
On the Plasmon Interpretation of the Secondary Structure in Field Ion Emission Spectra.
Surface Science, 60, 262 (1976).
55. J. Fripiat, J.M. André, E. Derouane, A.A. Lucas.
On the Stability of Polar Surface Planes of Macroscopic Ionic Crystals.
Chemical Physics Letters, 21, 101 (1977).
56. F. Delanaye, G.D. Mahan, A.A. Lucas.
Inelastic Scattering of Electrons by Vibrational Motion of Molecules Adsorbed at Metal Surfaces.
Surface Science, 70, 629 (1978).
57. A.A. Lucas.
Phénomènes de Surface.
Notes de cours de la Chaire Francqui Belge, Mons (1976).
58. A. Ronveau, A. Moussiaux, A.A. Lucas.
Interactions dans une chaîne de sphères ou de cavités alignées. Plasmons de surface et énergie de Van der Waals.
Can. J. Phys. 55, 1407 (1977).
59. F. Delanaye, G.D. Mahan, A.A. Lucas.
Image Effects on the Vibrational Motion of Carbon Monoxide Adsorbed on Metal Surfaces.
Proceedings of the IIIrd International Conference on Solid Surfaces, Ed. R. Dobrozemsky et al., Vienna, Sept. 12-16 (1977).
60. A. Ronveaux, A. Moussiaux, A.A. Lucas.
Surface Plasmon Oscillations for Different Geometrical Shapes.
Can. J. Phys. 55, 1423 (1977).
61. M. Ausloos, P. Clippe, A.A. Lucas.
Infrared Active Modes in Large Clusters of Spheres.
Phys. Rev. B18, 7176 (1978).
62. K. Ohtaka, A.A. Lucas.
The Van der Waals Interaction Energy Between a Void and a Metal Surface.
Solid State Comm. 24, 565 (1977).
63. A.A. Lucas, A. Moussiaux, M. Schmeits, P.H. Cutler.
Geometrical asymmetry effects on tunneling properties of point contact junctions.
Communications on Physics, 2, 169-174 (1977).
64. T.E. Sullivan, A.A. Lucas, P.H. Cutler.
Comments on Nonlinearity, Response Time and Polarity Reversal in a Thermal Field Emission Metal Whisker Diode.
Appl. Phys. 14, 289-294 (1977).
65. T.E. Sullivan, A.A. Lucas, P.H. Cutler.
The Use of Antenna Theory to Calculate the Electric Fields in a Thermal Field Emission Metal Whisker Diode.
Surf. Sc. 62, n° 2 (1977).
66. M. Schmeits, F. Delanaye, A.A. Lucas.
Collective Effects in Physical Adsorption.
J. Chem. Phys. 69, 5126 (1978).

67. F. Delanaye, M. Schmeits, A.A. Lucas.
Many-Body Interactions in Physically Adsorbed Monolayers.
Solid State Comm. 26, 907 (1978).
68. G.D. Mahan, A.A. Lucas.
Collective Vibrational Modes of Adsorbed CO.
J. Chem. Phys. 68, 1344 (1978).
69. M. Schmeits, A.A. Lucas.
Plasmon-Mediated Interaction between Physically Adsorbed Atoms - Curvature Effect.
Surface Science 74, 524 (1978).
70. K. Ohtaka, A.A. Lucas.
Life-Time of an Excited Atom in a Metal Cavity.
Phys. Rev. B 18, 4643 (1978).
71. A.A. Lucas, G.D Mahan.
Theory of Vibrations in Adsorbed Layers.
Proc. International Conference on Vibrations in Adsorbed Layers, Jülich KFA (June 1978 - extended abstract).
72. G. Debras, J.M. Gilles, A.A. Lucas.
Observation of Overpressurized Bubbles in Helium-Irradiated Aluminium Films.
Phys. Stat. Sol. (a) 51, 559 (1979).
73. N. Miskovsky, S. Shepherd, P.H. Cutler, T.E. Feuchtwang, A.A. Lucas.
Tunneling and Rectification Behavior in Point Contact Junctions of Identical Metals.
Appl. Phys. Letters, 35, 560 (1979).
74. A.A. Lucas.
Plasmon Mechanism for the Energy Loss. Dissociation and Orientation of Fast Ions Excited by Surface-Grazing Collisions.
Phys. Rev. Letters, 43, 1350 (1979).
75. A.A. Lucas.
A self Image Excitation Mechanism for Fast Ions Scattered by Metal Surfaces at Grazing Incidence.
Phys. Rev. B 20, 4990 (1979).
76. K. Ohtaka, H. Miyazaki, A.A. Lucas.
Collective Modes of Void-Surface Coupled System.
Phys. Rev. 21, 467 (1980).
77. N.M. Miskovsky, T.E. Feuchtwang, P.H. Cutler, A.A. Lucas.
Effect of Geometrical and Multiple Image Interactions on Tunneling and I-V Characteristics of Infrared Point-Contact Detectors.
Proc. IVth Conf. on IR and NMM Waves, Miami Florida, Dec. (1979). (Extended Abstract).
78. N.M. Miskovsky, S.J. Sheperd, P.H. Cutler, T.E. Sullivan, A.A. Lucas.
Geometry Field and Temperature Effects on Tunneling and Rectification Behaviour in Point Contact Junctions of Similar and Disimilar Metals. Application to Infrared and Optical Detectors.
26th Field Emission Symposium, Berlin (1979) (Extended Abstract).
79. S. Donnelly, G. Debras, J.M. Gilles, A.A. Lucas.

- The Deformation of Thin Aluminium Films under Helium Ion Bombardment.
Rad. Effects Letters, 50, 57 (1980).
80. S. Donnelly, J. Rife, J.M. Gilles, A.A. Lucas.
Optical Measurements of the Density of Helium in Small Bubbles in Aluminium Films.
J. Nucl. Mat. 94 & 95, 767 (1981).
81. N.M. Miskovsky, P.H. Cutler, A.A. Lucas.
Responsivity and I-V Characteristics of MVM and MOM Point Contact Infrared Detectors.
Proc. of the Symposium on Millimeter and Submillimeter waves, Wash. DC. (August 1981)
to be published.
82. R.F. Willis, A.A. Lucas, G.D. Mahan.
Vibrational Properties of Adsorbed Molecules, in "The Chemical Physics of Solid Surfaces
and Heterogeneous Catalysis", ed. by D.A. King and D.P. Woodruff, Elsevier, Amsterdam
1983, vol. 2.
83. J.C. Rife, S.E. Donnelly, A.A. Lucas, J.M. Gilles, J.J. Ritsko.
Optical Absorption and Electron Energy Loss Spectra of Helium Microbubbles in
Aluminium.
Phys. Rev. Letters 46, 1220 (1981).
84. A.A. Lucas.
Inelastic Scattering of Fast Particles by Plasmons. NATO ASI "Collective Excitations in
Solids", ed. by B. Di Bartolo, NATO ASI Series, Plenum Press Vol. 88, 365 (1981).
85. A.A. Lucas, R. Caudano, JM. Gilles, Eds.
"Vibrations at Surfaces", Plenum Press N.Y. (1980).
86. N.M. Miskovsky, P.H. Cutler, T.E. Feuchtwang, A.A. Lucas.
A Green's Function Solution to the Image and Multiple Image Interactions for Hyperboloidal
Geometry : Application to Metallic Point-Contact Infrared Detectors.
International Journal of Infrared and Millimeter Waves, Vol. 2, n°4, 739 (1981).
87. S. Donnelly, J. Rife, J.M. Gilles and A.A. Lucas.
The Use of Ion Accelerators and Synchrotron Radiation to Study the Interaction of Helium
with Metals.
Trans. Am. Nuc. Soc., IEEE Trans on Nuclear Science NS 28, 1820 (1981).
88. A.A. Lucas and P.H. Cutler, editors.
Quantum Metrology and Fundamental Physical Constants
NATO advanced study institutes series. Series B, Physics, v.98, plenum, N.Y.
89. E. Derouane and A.A. Lucas, Editors.
Electronic Structure and Reactivity of Metal Surfaces.
NATO ASI, Plenum Press, series B (1976).
90. M. Schmeits and A.A. Lucas.
Physical adsorption and surface plasmons.
Prog. Surface Sc. 14, pp. 1-52, 1983.
91. N.M. Miskovsky, P.H. Cutler, T.E. Feuchtwang, A.A. Lucas.
The multiple-image interaction and the mean-barrier approximation in MOM and MVM
Tunneling junctions.
Appl. Phys. A27, 1-9 (1982).

92. A.A. Lucas, S.E. Donnelly, J.P. Vigneron et J.C. Rife.
Vacuum ultraviolet spectroscopy of high-pressure helium microbubbles in metals.
Surface Sci. 126, 66-79 (1983).
93. A.A. Lucas, J.P. Vigneron, S.E. Donnelly and J.C. Rife.
Theoretical interpretation of the VUV reflectance of liquid helium and of VUV absorption spectra of helium microbubbles in aluminium.
Phys. Rev. B, 28, 2485 (1983).
94. S.E. Donnelly, J.C. Rife and A.A. Lucas.
Vacuum ultraviolet fluorescence of helium in bubbles in aluminium and tin.
Appl. Phys. Lett. 43 (1), 1983.
95. S.E. Donnelly, H.J. Whitlow, M. Renier and A.A. Lucas.
Lateral stress induced blistering of aluminium films.
Journal of Nuclear Materials, 115, PP. 347-349 (1983).
96. S.E. Donnelly, A.A. Lucas, J.P. Vigneron and J.C. Rife.
The density of helium in bubbles in implanted materials : results from VUV absorption and EELS spectroscopy.
Radiation Effects, Vol. 78, pp. 337-347 (1983).
97. A.A. Lucas, J.P. Vigneron, S.E. Donnelly and J.C. Rife.
The density of helium in bubbles in implanted materials : theoretical interpretation of VUV absorption and EELS spectroscopy.
Radiation Effects, Vol. 78, 349-362 (1983).
98. S.E. Donnelly, A.A. Lucas, Ph. Lambin and J.P. Vigneron.
A possible mechanism for electron bombardment induced loop punching in helium implanted materials.
Phys. Stat. Sol. (a), 79, 543, 1983.
99. T.E. Feuchtwang, P.H. Cutler, N.M. Miskovsky; A.A. Lucas.
Electron tunneling theory and non-linear transport in junctions and micro-structures.
Quantum Metrology and Fundamental Physical Constants - NATO advanced study institutes series. Series B, Physics, vol. 98, Plenum, N.Y.
100. A.A. Lucas et J.P. Vigneron.
Theory of electron energy loss spectroscopy from surfaces of anisotropic materials.
Solid State Communications, vol. 49, n° 4, pp. 327-330, 1984.
101. H.Q. Nguyen, P.H. Cutler, T.E. Feuchtwang, N. Miskovsky and A.A. Lucas.
An analytical solution for the WKB transmission coefficient for potential functions up to quartic order : application to tunneling in metal-vacuum-metal junctions.
Surface Sc. 146, 405 (1984).
102. J.P. Rogers III, P.H. Cutler, T.E. Feuchtwang, N. Miskovsky and A.A. Lucas.
Influence of the boundary conditions on the Fermi energy and density of states in a free-electron solid of sub-micron dimensions.
Surface Sci. 141, 61 (1984).
103. A.A. Lucas.
Helium in Metals.
Proceedings of the 4th General Conference of the Condensed Matter. Division of EPS.
Physica 127B, 225 (1984).

104. J.P. Vigneron, A.A. Lucas, P.A. Thiry, M. Liehr, J.J. Pireaux and R. Caudano.
 High Resolution Electron Energy loss Spectra from surfaces and Interfaces of Semiconductor oxides.
 To be published in Proc. of the 17th Int. Conf. on the Physics of Semiconductors, Springer Verlag (1984).
105. A.A. Lucas, J.P. Vigneron, P.H. Cutler, T.E. Feuchtwang, R.H. Good, Jr. and Z. Huang.
 Potential Distribution in Metal-Vacuum-Metal Planar Barriers Containing Spherical Protrusions or Intrusions.
 Proceedings of the 31st F.E. Symposium, Paris (1984), Colloque C 9, suppl 12, Journal de Physique 45, C9, 1984.
106. H.Q. Nguyen, P.H. Cutler, T.E. Feuchtwang and N. Miskovski and A.A. Lucas.
 An analytical solution for the WKB transmission coefficient for potential functions up to quartic order : application to tunneling in metal-vacuum-metal junctions.
 Surface Science, Vol. 146, N°2/3, Nov. 1984
- Prix FRANCQUI 1985.
107. M. Renier, A.A. Lucas, and S.E. Donnelly.
 A new low-energy Ion Gun for Bombardment of Cylindrical Surfaces.
 Vacuum, Vol 35, 12, 577-578, 1985.
108. P.A. Thiry, M. Liehr, J.J. Pireaux, R. Sporken, R. Caudano, J.P. Vigneron and A.A. Lucas.
 Vibrational Study of SiO₂/Si Interface by High Resolution Electron Energy loss Spectroscopy.
 Published in Proc. of the 12th International Conference on the Physics and Chemistry of Semiconductor Interfaces, J. Vac. Sci. Techn. (1985).
109. A.A. Lucas, J.P. Vigneron, Ph. Lambin, P.A. Thiry, M. Liehr, J.J. Pireaux and R. Caudano.
 Electron Energy Loss Spectroscopy of Surface and Interface Phonons of Insulators, Semiconductors and Superlattices.
 Int. Journal. of Quant. Chemistry 2. Quantum Chem. Symposium 19, 687-705 (1986).
110. Ph. Lambin, J.P. Vigneron and A.A. Lucas.
 Theory of Electron Energy Loss Spectroscopy at the Surface of a Planar Stratified Medium.
 Application to semiconductor Supperlattices.
 Solid State comm., 54, 257 (1985).
111. Ph. Lambin, J.P. Vigneron and A.A. Lucas.
 Electron Energy Loss Spectroscopy of heterostructure materials : Theoretical Aspects and Application to Interface optical Phonons in Semi conductor Supperlattices.
 Phys. Rev. B, 32, 8203 (1985).
112. A.A. Lucas.
 The Quantum Hall Effect.
 Annales de la Soc. Scient. de Bruxelles, T 99, IV, pp 119-152 (1985).
113. A.A. Lucas, H.Q. Nguyen, P.H. Cutler, T.E. Feuchtwang, N. Miskovsky.
 Investigation of a New Numerical Method for the Exact Calculation of One-Dimensional Transmission Coefficients : Application to the Study of Limitations of the WKB Approximation.
 Surface Sci. 160 (1985) 331-352.

114. P.A. Thiry, M. Liehr, J.J. Pireaux, and R. Caudano; Ph. Lambin, J.P. Vigneron and A.A. Lucas.
Optical surface phonons of dielectric materials investigated by high resolution electron energy loss spectroscopy.
Proceedings of the 2nd International Conference on "Phonon Physics", Budapest, 26-31 August 1985, edited by J. Kollar, N. Kroo, N. Menyhard and D. Silkos, World Scientific Publishing Co (Singapore), 650-652 (1985).
115. Ph. Lambin, J.P. Vigneron and A.A. Lucas.
Theory of electron energy loss spectroscopy of a plane-stratified medium with an application to the study of interface optical phonons in GaSb-AlSb superlattices.
Journal of Electron Spectroscopy and Related Phenomena, 39, 59-68 (1986).
116. P.A. Thiry, M. Liehr, JJ. Pireaux, R. Caudano, Ph. Lambin, JP. Vigneron, A.A. Lucas and T. Kuech.
Surface and Interface optical phonons of a GaAs-AlGaAs superlattice measured by high resolution electron energy loss spectroscopy.
J. Vac. Sc. Technol. B4, 1028 (1986).
117. Ph. Lambin, T. Laloyaux, P.A. Thiry, J.P. Vigneron and A.A. Lucas.
On the contribution of edge phonons to the electron-energy-loss spectrum of LiF.
Europhysics Letters, 2, 409-14 (1986).
118. J-M. Depauw, M. Renier, M. Hannotiau, A.A. Lucas.
Production of Thin Films with Use of a Cylindrical Low Energy Ion Gun.
J. Vac. Sc. Technol. 36, 11/12, 777-780 (1986).
119. A.A. Lucas, J.P. Vigneron, Ph. Lambin, P.A. Thiry, J.J. Pireaux and R. Caudano.
Recent advances in electron energy loss spectroscopy of surface and interface vibrations of layered materials.
Physica Scripta, T13, 150-4 (1986).
120. Ph. Lambin, J.P. Vigneron, A.A. Lucas, P.A. Thiry, M. Liehr, J.J. Pireaux, R. Caudano and T.J. Kuech.
Observation of Long-Wavelength Interface Phonons in a GaAs-AlGaAs superlattice.
Physical Review Letters, 56, 1842-1845 (1986).
121. J.P. Vigneron, A. Dereux, Ph. Lambin and A.A. Lucas.
Polariton structure of multilayered semiconducting materials.
18th International Conference on the Physics of Semiconductors, Stockholm 1986.
Engström (Edit.), World Scientific Publishing Co, Singapore, 1987, pp. 659-62.
122. Ph. Lambin, J.P. Vigneron, A.A. Lucas and A. Dereux.
Electrodynamics of a plane-stratified medium, with applications to electron-energy-loss spectroscopy, infrared reflectivity measurement and attenuated total reflection.
Physica Scripta, 35, 343-53 (1987).
123. Ph. Lambin, T. Laloyaux, A.A. Lucas and JP Vigneron.
Theory of electron-energy-loss spectroscopy of surface and interface phonons in a two-medium target with a transverse boundary.
Phys. Rev. B , 35, 11 (1987) I.
124. A. Dereux, J-P. Vigneron, Ph. Lambin and A.A. Lucas.
Polariton structure and spectral reflectance of multilayered semi-conducting materials.
Physica Scripta 35, 338-42 (1987).

125. Ph. Lambin, A.A. Lucas and J-P. Vigneron.
On the role of the image force on the electron-energy-loss spectrum of a dielectric target.
Surface Science, 182 (1987) 567-575.
126. E.G. Derouane, Z. Gabelica, J-L. Bredas, J-M. André, Ph. Lambin, A.A. Lucas and J-P. Vigneron.
Relationship between oxygen stoichiometry and crystal structure in $\text{YBa}_2\text{Cu}_3\text{O}_{6.5+x}$ precursors to high Tc superconducting materials.
Solid State Communications, 64, 7 (1987) 1061-1068.
127. E. Derouane, J-M. André and A.A. Lucas.
A simple Van der Waals Model for Molecule-Curved Surface Interactions in Molecular-Sized Microporous Solids.
Chemical Physics Letters, 137, 4, 87.
128. E. Orti, Ph. Lambin, J-L. Brédas, J-P. Vigneron, E.G. Derouane, A.A. Lucas and J-M. André.
Band Structure of $\text{YBa}_2\text{Cu}_3\text{O}_x$ in Relation with the Oxygen Vacancy Distribution.
Solid State Communications, Vol. 64, N°3, pp. 313-316, 1987.
129. P.H. Cutler, T.E. Feuchtwang, Z. Huang, T.T. Tsong, Y. Kuk, H. Nguyen and P.H. Silverman, A.A. Lucas, T.E. Sullivan.
Experimental and theoretical results of rectification measurements in an STM.
Jl. de Phys. Colloque C6, Suppl. n°11, Tome 48, Nov 87.
130. P.H. Cutler, T.E. Feuchtwang, Z. Huang, T.T. Tsong, Y. Kuk, H. Nguyen and P.H. Silverman, A.A. Lucas, T.E. Sullivan.
Use of an STM to define and measure and operational tunneling time.
Jl. de Phys. Colloque C6, Suppl. n°11, Tome 48, Nov 87.
131. A. Dereux, J-P. Vigneron, Ph. Lambin and A.A. Lucas.
Phonon-Polariton Density of States in Semiconductor Superlattices.
Superlattices and Microstructures, Vol. 3, N°5, 547-552, 1987.
132. Z. Gabelica, G. Demortier, G. Deconninck, F. Bodart, A.A. Lucas, M. Renier, Ph. Lambin, J-P. Vigneron and E.G. Derouane.
Synthesis Parameters Affecting the Bulk Composition and Superconducting Properties of YBaCuO -Based Compounds.
Solid State Communications, Vol. 64, N°8, pp. 1137-1140, 1987.
133. Ph. Lambin, E. Orti, J-L. Brédas, J-P. Vigneron, E.G. Derouane, A.A. Lucas and J-M. André.
Rôle of the Oxygen Vacancy Distribution in the Electronic Structure of the High Tc Superconductor $\text{YBa}_2\text{Cu}_3\text{O}_7$.
European Workshop on High Tc Superconductors and Potential Applications, Genova (Italy), July 1-3, 1987, pp. 261-262.
134. J.P. Rogers III, P.H. Cutler, T.E. Feuchtwang and A.A. Lucas.
Quantum size effects in the fermi energy and electronic density of states in a finite square well thin film model.
Surface Science 181 (1987) 436-456.
135. Z. Gabelica, E.G. Derouane, J-P. Vigneron, Ph. Lambin, M. Renier, A.A. Lucas, G. Deconninck, F. Bodart and G. Demortier.

Oxygen stoichiometry of $\text{YBa}_2\text{Cu}_3\text{O}_{6.5+x}$ superconducting phase formed and stabilized under various atmospheres : a TG-DTA-DTG study.
Solid State Commun. 64, 9 (1987) 1221-1224.

136. A.A. Lucas, Ph. Lambin et J.P. Vigneron.
La révolution des supraconducteurs. Deuxième partie : les fondements théoriques.
ISIS. IBM Informations 1987
137. Ph. Lambin, J-P. Vigneron, M. Mathot and A.A. Lucas.
Evolution of the Surface Charge density induced during Electron Energy loss Experiments in Reflection Geometry.
Physicalia Mag. 10 (1988) 61-76.
138. A.A. Lucas, H. Morawitz and G.R. Henry, J-P. Vigneron, Ph. lambin, P.H. Cutler, T.W. Feuchtwang.
New Scattering Theoretic Approach to Elastic One-Electron Tunneling Through Spatially localized Barriers. Application to scanning Tunneling Microscopy.
Solid State Com. 65, 1291 (88).
139. A.A. Lucas, H. Morawitz and G.R. Henry, J-P. Vigneron, Ph. lambin, P.H. Cutler, T.W. Feuchtwang.
Scattering Theoretic Approach to Elastic One-Electron Tunneling Through localized Barriers. Application to scanning Tunneling Microscopy.
Physical Rev. B, Vol. 37, n°18, 15.06.1988, II.
140. A.A. Lucas, H. Morawitz and G.R. Henry. J-P. Vigneron , Ph. Lambin, P.H. Cutler and T.W. Feuchtwang.
Tunneling through localized barriers with application to STM : new Scattering Theoretic Approach and Results.
J. Vac. Sci. Techn. A 6 (2) March 88.
141. A.A. Lucas, P.H. Cutler, T.E. Feuchtwang, T.T. Tsong, T.E. Sullivan, Y. Kuk, H. Nguyen, P.J. Silverman.
Use of an STM to rectify Optical Frequencies and Measure an Operational Tunneling Time.
J. Vac. Sc. Technol. A6 (2) 1988.
142. E. Derouane, J-M. André and A.A. Lucas.
Surface Curvature Effects in Physisorption and Catalysis by Microporous Solids And Molecular Sieves.
Journal of Catalysis 110, N°1, March 1988.
143. Ph. Lambin, J-P. Vigneron and A.A. Lucas.
Electronic Properties of Structural Defects in $\text{YBa}_2\text{Cu}_3\text{O}_x$.
Physica C 153-155 (1988) 1241-1242.
144. J-P. Vigneron, Ph. Lambin and A.A. Lucas, and Hans Morawitz.
Collective Polarization waves in High Tc Superconductors.
Physica C 153-155 (1988) 1313-1314.
145. Ph. Lambin, A.A. Lucas, J.P. Vigneron.
Théorie des défauts, des surfaces et interfaces, et problèmes industriels.
Nouvelles de la Science et des Technologies, vol. 6. N°1, mars 1988.
146. A. Lucas, Ph. Lambin.

The Interuniversity Attraction Pole in Interface Sciences.
Physicalia Mag. 4-6 (1988), vol. 10, n°2, 127-136.

147. Th. Laloyaux, A.A. Lucas, J.P. Vigneron, Ph. Lambin, H. Morawitz.
Lateral resolution of the scanning tunneling microscope.
Journ. of Microscopy, Vol. 151, paper 1024, July 1988.
148. A. A. Lucas, J.M. André.
L'impact de la chimie et de la physique théoriques sur le développement industriel.
Nouvelles de la Science et des Technologies, vol. 6, n°1, pp 7-8 (1988).
149. A. Dereux, J.-P. Vigneron, Ph. Lambin et A.A. Lucas.
Radiative and Non-Radiative Polariton Structure of Superlaticces.
Physica Scripta, Vol. 38, 462-467, 1988.
150. A. Dereux, J.P. Vigneron, Ph. Lambin and A.A. Lucas.
Polaritons in Semiconductors multilayered materials.
Phys. Rev. B. Vol 38, n°8, 5438-5452.
151. Ph. Lambin, P.A. Thiry, R. Sporken and A.A. Lucas.
Interpretation of Electron-Energy-Loss Spectra of Surface and Interface Phonons in
Multilayered Materials.
Cptes Rendus de la 2e Renconctre Internationale de Physique "Les Sciences des Surfaces
des Matériaux", Oran (Algérie) 10-12/12/88, B. Khalifa, S. Sahraan, A. Kadii (Eds) 135-140.
152. A.A. Lucas.
L'effet tunnel électronique et les microscopies à résolution atomique.
Acad. Royale de Belgique, Bull. Classe des Sci. 5, LXXIV, 1988-12.
153. H.Q. Nguyen, P.H. Cutler, T.E. Feuchtwang, Z. Huang, Y. Kuk, P.J. Silverman, A.A. Lucas, T.E. Sullivan.
Mechanisms of current rectification in an STM tunnel junction and the measurement of an
operational tunneling time.
IEEE Transactions on Electron devices. 36, 11 (1989).
154. A.A. Lucas, Ph. Lambin, J.P. Vigneron.
Current theoretical trends in High-Tc superconductivity.
Physicalia Mag. 4-6/1989, vol. 11, n°2, 99-117.
155. Ph. Lambin, A.A. Lucas, I. Derycke, J.P. Vigneron and E.G. Derouane.
Van der Waals interaction at a material wedge.
J. Chem.Phys. 90 (7) 1989.
156. P.A. Thiry, R. Sporken, J.J. Pireaux, R. Caudano, Ph. Lambin, J.P. Vigneron and A.A. Lucas.
Interface optical phonons : a non-destructive and quantitative study by high resolution
electron energy loss spectroscopy.
Phonons 89, Heidelberg, 21-25 août 89, World Sci. Publ.
157. Th. Laloyaux, Ph. Lambin, J-P. Vigneron and A.A. Lucas.
Resolution of the one-dimensional scattering problem by a finite element method.
J. of Comp. Physics, 83, n°2, 1989.
158. E.G. Derouane, L. Leherte, D. P. Vercauteren, A.A. Lucas, J.M. André.
On the origin of an external surface barrier to sorption in microporous solids : reply to F. Vigné-Maeder.

Journal of Catalysis, 119, 266-268 (1989).

159. A. Dereux, A.A. Lucas, J.P. Vigneron, Ph. Lambin.
L'optique au-delà de la limite de diffraction et la microscopie de champ proche à balayage.
Physicalia Mag. 11 (1989) 249-268.
160. Th. Laloyaux, A.A. Lucas, J.P. Vigneron, Ph. Lambin.
Theoretical study of the scanning tunneling microscope.
Inst. Phys. Conf. Ser. n°99, section 5. Second Int. Conf. on Vac. Microelectron., Bath 1989.
161. J.P. Vigneron, M. Scheffler, Th. Laloyaux, I. Derycke, A.A. Lucas.
Spatial electron current distribution in a scanning tunneling microscope.
Vacuum, 41, 745 (1990).
162. A.A. Lucas.
Theories for Tunneling Microscopy.
Europhysics News, 21, 4 (1990) 61-80.
163. P. Senet, Ph. Lambin, J.P. Vigneron, I. Derycke, A.A. Lucas.
Phonon surface loss function of ionic-crystal films : a comparison between microscopic and macroscopic approaches.
Surface Science 226 (1990) 307-321.
164. Ph. Lambin, J.P. Vigneron, A.A. Lucas.
Computation of the surface electron-energy-loss spectrum in specular geometry for an arbitrary plane stratified medium.
Computer Physics Communications, 60 (1990) 351-364.
165. A. Lucas, Ph. Lambin, J.P. Vigneron, A. Dereux, Th. Laloyaux.
Classical and quantum tunneling in microstructures.
Superlattices and Microstructures, 8, 1 (1990).
166. Ph. Lambin, P. Senet, A.A. Lucas.
Microscopic theory of the surface dielectric response of thin films made from ionic crystals.
XXth European Symposium on the Dynamical Properties of Solids, Chexbres, Switzerland,
30/9-4/10/91, Extended Abstract, p 66-67.
167. Ph. Lambin, P. Senet, A. Lucas.
Validity of the dielectric approximation in describing electron-energy-loss spectra of surface phonons in thin films of ionic crystals.
Phys. Rev.B 44, 6416-6428 (1991).
168. I. Derycke, J.P. Vigneron, Ph. Lambin, Th. Laloyaux, A. Lucas.
Computation of Scanning Tunneling Microscope Images.
Int. J. of Quantum Chem. Quantum Chem. Symposium, 25, (1991) 687-702.
169. I. Derycke, J.P. Vigneron, Ph. Lambin, A.A. Lucas, E.G. Derouane.
Physisorption in Confined geometry.
J. Chem. Phys. 94 (6), 4620-4627, 1991.
170. A. Lucas, J.P. Vigneron, Ph. Lambin, Th. Laloyaux, I. Derycke
Theoretical aspects of scanning tunneling microscopy.
ECOSS 12, Stockholm. Surf. Sci., 269/270, (1992), 74-80.
171. G. Gensterblum, J.J. Pireaux, P.A. Thiry, R. Caudano, J.P. Vigneron, Ph. Lambin, A. Lucas.

- High resolution electron energy loss spectroscopy of Thin Films of C60 on Si(100).
Phys. Rev. Lett. 67, 16 (1991).
172. A. Lucas, G. Gensterblum, J.J. Pireaux, P.A. Thiry, R. Caudano, J.P. Vigneron, Ph. Lambin.
Elementary excitations of C60 from the far infrared to the far vacuum ultraviolet, studied by
high resolution electron energy loss spectroscopy.
Phys. Rev. B45, 13694-13702 (1992).
173. P. Senet, Ph. Lambin, A. Lucas.
Contribution of surface microscopic phonons to the electron energy loss spectrum of ionic
films on an intrinsic semiconductor. ECOSS 12, Stockholm.
Surf. Sci. 269/270, 141-145 (1992)
174. J.P. Vigneron, I. Derycke, Ph. Lambin, Th. Laloyaux, A. Lucas, L. Libioulle,
A.Ronda.
Three-dimensional scattering and scanning tunneling microscope images.
Ultramicroscopy, 42-44 (1992), 250-255.
175. A. Dereux, J.P. Vigneron, Ph. Lambin, A. Lucas.
Theory of Near-Field optics with applications to SNOM and optical binding.
Physica B, 175 (1991) 65-67.
176. I. Derycke, J.P. Vigneron, Th. Laloyaux, A.A. Lucas.
Computation of Scanning Tunneling Microscope Images.Micron and Microscopica
Acta, Vol. 22, n°3, (1991) 283.
177. Ph.Lambin, A. Lucas, J.P. Vigneron.
Polarization waves and Van der Waals cohesion of C60 fullerite.
Phys. Rev. B46, 1794-1803 (1992).
178. G. Gensterblum, Li-Ming Yu, J.J. Pireaux, P.A. Thiry, R. Caudano, Ph. Lambin, A.
Lucas, W. Krätschmer, J.E. Fischer.
High resolution electron energy loss spectroscopy of epitaxial films of C60 grown on
GASe.
J. of Physics and Chemistry of Solids, 53, 1427-1432 (1992).
179. A. Lucas.
Electron energy loss spectroscopy of C60 fullerite films.
J. Phys. Chem. Solids. Vol. 53, n°11, pp 1415-1426, 1992.
180. Ph. Lambin, A. Lucas.
Van der Waals cohesion and plasmon excitations in C60 fullerite.
Springer Series in Solid State Sciences, Vol. 113, Electronic Properties of High-
Temperature Superconductors. H. Kuzmany, M. Mehring, J. Fink, Eds. Springer
Verlag, Berlin, 1993, 507-511.
181. G. Gensterblum, J.J. Pireaux, P.A. Thiry, R. Caudano, Ph. Lambin, A. Lucas.
High resolution electron energy loss spectroscopy of thin C60 films.
Springer Series in Solid State Sciences, Vol. 113, Electronic Properties of High-
Temperature Superconductors. H. Kuzmany, M. Mehring, J. Fink, Eds. Springer
Verlag, Heidelberg, 1993.
182. Th. Laloyaux, J.P. Vigneron, Ph. Lambin, I. Derycke, A. Lucas.
Resolution of Schrödinger's equation for a scattering problem by a finite-element
method.
Int. J. of Quantum Chemistry, 45, 637-647 (1993).

183. Th. Laloyaux, I. Derycke, J.P. Vigneron, Ph.Lambin, A. Lucas.
Simulation of current in the scanning tunneling microscope.
Phys. Rev. B, 47, 12 (1993), 7508-7518.
184. J.P. Vigneron, I. Derycke, Th.Laloyaux, Ph.Lambin, A. Lucas.
Computation of scanning tunneling microscope images of nanometer-sized objects
physisorbed on metal surfaces.
Scanning Microscopy Suppl. 7 (1993), 261-268.
185. L. Henrard, A. Lucas, Ph.Lambin.
On the 2175 Å absorption band of hollow, onionlike carbon particles.
Astrophysical Journal, 406, 92-96 (1993)
186. A. Lucas, Ph. Lambin, R.E. Smalley.
On the energetics of tubular fullerenes.
J. Phys. Chem. Sol. 54, 5 (1993), 587-593.
187. G. Gensterblum, J.J. Pireaux, P. Thiry, R. Caudano, Ph. Lambin, A. Lucas.
Vibrational and electronic structure of C₆₀ fullerite studied by electron
spectroscopies.
Physicalia Magazine, 14, 239-270 (1992).
188. Th. Laloyaux, I. Derycke, J.P. Vigneron, Ph. Lambin, A. Lucas.
Theoretical contributions to scanning tunneling microscopy.
Physicalia Mag. 14 (1992) 1, pp 3-32.
189. A.A. Lucas, Ph. Lambin.
Sciences of interfacial and mesoscopic structures : renewal of an interuniversity
attraction pole. Physicalia Mag. 15 (1993), 183-188.
190. Ph. Lambin, A. Lucas.
Surface Dielectric response of collective plasmon excitations in C₆₀ fullerite.
Fullerene Science and Technology, 1 (2), 159-175 (1993).
191. G. Gensterblum, J.J. Pireaux, P.A. Thiry, R. Caudano, Ph.Lambin, A.A. Lucas.
Structural, vibrational and electronic properties of C₆₀ thin films investigated by high
resolution electron energy loss spectroscopy. J. Electron Spectrosc. Relat. Phenom.
64/65 (1993) 835-842.
192. L. Philippe, Ph. Lambin, P. Senet, A. Lucas.
Phonon structure of thin films of the YBACUO compound.
Applied Superconductivity, 2 (2) 135-141 (1994).
193. A. Lucas, L. Henrard, Ph. Lambin.
Computation of the ultraviolet absorption and electron inelastic scattering cross
section of onion-like hyperfullerenes. Phys. Rev. B, 49, 4 (1994) 2888-2896.
194. Ch. Girard, Ph.Lambin, A. Dereux, A. Lucas.
Van der Waals attraction between two C₆₀ fullerene molecules and physical
adsorption of C₆₀ on graphite and other substrates. Phys. Rev.B, 49,16 (1994) 11425-
11432.
195. X.B. Zhang, X.F. Zhang, D. Bernaerts, G. Van Tendeloo, S. Amelinck, J. Van
Landuyt, V. Ivanov, Ph. Lambin, A. Lucas.

The texture of catalytically grown coil-shaped carbon nanotubules. *Europhysics Letters*, 27(2) 141-146 (1994).

196. V. Ivanov, J.B.Nagy, Ph. Lambin, A. Lucas, X.B. Zhang, X.F. Zhang, D. Bernaerts, G. Van Tendeloo, J. Van Landuyt,
The study of carbon nanotubules produced by catalytic methods. *Chem. Phys. Letters*, 223, 329-335 (1994).
197. E.A. Perpète, J.M. André, B. Champagne, P. Senet, Ph.Lambin, A. Lucas
Electronic and vibrational polarizabilities of buckminsterfullerene.
Bull. Soc. Chim. Belg. 103, 4 (1994), 135-141.
198. P. Senet, Ph. Lambin, A.A. Lucas.
Standing-wave optical phonons confined in ultra-thin overlayers of ionic materials.
PRL, 74,4 (1995)570-573.
199. H. Richter, A. Dereux, J.M. Gilles, C. Guillaume, P.A. Thiry, A.A. Lucas.
Sublimation of pure C₆₀ fullerene and of C₆₀ adsorbed on MgO or graphite powders.
Berichte der Bunsengesellschaft für Phys. Chemie, 98, 1329-1331 (1994).
200. G. Gensterblum, K. Hevesi, B.Y.Han, L.M. Yu, J.J. Pireaux, P. Thiry, R. Caudano, A. Lucas, D. Bernaerts, S. Amelinckx, G. Van Tendeloo, G. Bendele, T. Buslaps, R.L. Johnson, M. Foss, R. Feydenhans'l, G. Le Lay.
Growth mode and electronic structure of the epitaxial C₆₀(111)/GeS(001) interface.
Phys.Rev. B, 50, 16 (1994), 11981-11995.
201. A. Lucas, Ph.Lambin, V. Ivanov, J.B.Nagy, D. Bernaerts, X.B. Zhang, X.F. Zhang, S. Amelinck, G. Van Tendeloo, J. Van Landuyt.
Coiled carbon nanotubes. In "Progress in Fullerene Research", H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds), World Scientific, Singapore (1994), 120-124.
202. P. Senet, L. Henrard, Ph. Lambin, A. Lucas.
A one parameter model of the UV spectra of carbon.
In "Progress in Fullerene Research", H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds), World Scientific, Singapore (1994), 393-396.
203. L. Henrard, P. Senet, Ph. Lambin, A. Lucas.
Polarizability of onion-like fullerene.
In "Progress in Fullerene Research", H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds), World Scientific, Singapore (1994), 380-383.
204. A. Lucas, J.P. Vigneron, A. Dereux, I. Derycke.
Electron and photon tunneling in nanoscopic and mesoscopic structures.
Le vide, les couches minces, 272 (1994), 193-195.
205. V. Ivanov, A. Fonseca, J.B.Nagy, A. Lucas, Ph. Lambin, D. Bernaerts, X.B. Zhang.
Catalytic production and purification of nanotubules having fullerene-scale diameters.
Carbon, 33, 12 (1995) 1727-1738.
206. B.Y. Han, L.M. Yu, K. Hevesi, G. Gensterblum, P. Rudolf, J.J. Pireaux, P.A. Thiry, R. Caudano, Ph. Lambin, A. Lucas
Electronic transitions and excitations in solid C₇₀ studied by EELS and XPS C 1s satellite structures. *PRB* 51, 11 (1995) 7179-7185.

207. P.A. Gravil, Ph. Lambin, G. Gensterblum, L. Hennard, A. Lucas.
Polarization of C₆₀ by the Surface Electric Field of GeS(001).
Surface Science, 329 (1995) 199-205.
208. H. Richter, A. Fonseca, S.C. Emberson, J.M. Gilles, J.B. Nagy, P.A. Thiry, R. Caudano, A. Lucas.
Fabrication of fullerenes in benzene/oxygen/argon - and benzene/acetylene/oxygen /argon flames.
J. of Chem. Phys., 92 (1995) 1272-1285.
209. A.A. Lucas, L. Hennard, Ph. Lambin.
Plasmons on spherical carbon shells.
Nucl. Instr. and Methods in Physics Research, B96 (1995) 470-477.
210. H. Richter, A. Fonseca, P.A. Thiry, J.M. Gilles, J.B. Nagy, A. Lucas.
Combustion synthesis of fullerenes.
MRS Symposium Proc. 359 (1995) 17-22.
211. A. Fonseca, K. Hernadi, J.B. Nagy, Ph. Lambin, A. Lucas.
Model structure of perfectly graphitizable coiled carbon nanotubes.
Carbon, 33, 12 (1995) 1759-1775.
212. H. Richter, A. Fonseca, J.M. Gilles, J.B. Nagy, P.A. Thiry, A. Lucas.
Effect of HBr, HCl and Cl₂ on fullerene formation in benzene/oxygen/argon flames.
Carbon, 34, 3 (1996) 317-326.
213. H. Richter, K. Hernadi, J. Vandooren, A. Fonseca, J.M. Gilles, P.A. Thiry,
J.B. Nagy, A. Lucas, E. de Hoffmann.
Injection of alogenated compounds into fullerene-forming flames.
Eastern States Section of the combustion Institute, 1995 Fall Technical Meeting
"Chemical and Physical Processes in combustion", Worcester, MA (1995), 439-442.
214. S. Amelinckx, D. Bernaerts, G. Van Tendeloo, J. Van Landuyt, A. Lucas, M. Mathot, Ph. Lambin.
The morphology, structure and texture of carbon nanotubes : an electron microscopy study.
Physics and chemistry of fullerenes and derivatives, Edits. H. Kuzmany, J. Fink,
M. Mehring, S. Roth (World Scientific Publishing Co Ltd, Singapore, 1995), p.
515.
215. A. Fonseca, H. Richter, R. Doome, J.B. Nagy, J.M. Gilles, P.A. Thiry, A. Lucas.
Extraction, purification and characterization of fullerenes produced by combustion.
Physics and chemistry of fullerenes and derivatives, Edits. H. Kuzmany, J. Fink,
M. Mehring, S. Roth (World Scientific Publishing Co Ltd, Singapore,
1995), p. 17.
216. Ph. Lambin, A. Fonseca, J.P. Vigneron, J.B. Nagy, A. Lucas.
Structural and electronic properties of bent carbon nanotubes.
Chem. phys. Lett. 245 (1995) 85-89.
217. H. Richter, A. Fonseca, J.M. Gilles, J.B. Nagy, P.A. Thiry, A. Lucas, E. de Hoffmann.
Addition of HCl, Cl₂, CoCl₂ and KI to fullerene forming benzene/oxygen/argon flames.

Synthetic Metals, 77 (1996) 217-221.

218. K. Hernadi, A. Fonseca, J.B.Nagy, D. Bernaerts, J. Riga, A. Lucas.
Catalytic synthesis and purification of carbon nanotubes.
Synthetic Metals, 77 (1996) 31-34.
219. L. Henrard, P. Senet, Ph.Lambin, A. Lucas
On the ultraviolet spectrum of multishell fullerenes and its role as possible component of interstellar dust.
Fullerene Science and Technology, 4 (1996) 131-165.
220. A. Fonseca, K. Hernadi, J.B.Nagy, Ph. Lambin, A.Lucas.
Growth mechanism of coiled carbon nanotubes.
Synthetic Metals,77 (1996) 235-242.
221. P.A. Gravil, M. Devel, Ph. Lambin, Ch. Girard, A. Lucas.
Adsorption of C₆₀ molecuels
Phys. Rev. B, 53, 3 (1996), 1622-1629.
222. L. Henrard, P. Senet, Ph. Lambin, A. Lucas.
Dielectric model for giant fullerenes.
Synthetic Metals, 77 (1996) 27-30.
223. Ph. Lambin, J.P. Vigneron, A. Fonseca, J.B.Nagy, A. Lucas.
Atomic structure and electronic properties of a bent carbon nanotube.
Synthetic Metals, 77/1-3 (1996) 249-252.
224. A. Lucas, V. Bruyninckx, Ph. Lambin.
Calculating the diffraction of electrons or X-rays by carbon nanotubes.
Europhysics Letters, 35 (5), 355-360 (1996).
225. A. Fonseca, E. Perpete, P. Galet, B. Champagne, J.B.Nagy, J.M. André, Ph. Lambin, A. Lucas.
Quantum chemical evalutation oof the knee angle in the (5,5)-(9-0) coiled carbon tubule.
J. Phys. B : At. Mol. Opt. Phys. 29 (1996), 1-9.
226. A. Lucas
Eloge de Harold Clayton Urey.
Discours prononcé lors de la Classe des Sciences à l'Académie Royale des Sciences et des Beaux Arts de Belgique.
227. K. Hernadi, A. Fonseca, J.B.Nagy, D. Bernaerts, A. Fudala, A. Lucas.
Catalytic synthesis of carbon nanotubes using zeolite support.
Submitted to Zeolites.
228. K. Hernadi, A. Fonseca, J.B.Nagy, D. Bernaerts, A. Lucas.
Fe-catalyzed carbon nanotube formation.
Submitted.
229. A. Lucas, V. Bruyninckx, Ph. Lambin, D. Bernaerts, S. Amelinckx, J. Van Landuyt, G. Van Tendeloo.
Electron diffraction by carbon nanotubes.
Scanning Microscopy International, submitted.
230. A. Lucas, Ph. Lambin.

- DNA Optical and computer simulations of wave diffraction by helical structures : from DNA to carbon nanotubes. Comptes Rendus de l'ARB (1996).
231. Quantitative theory of diffraction by carbon nanotubes, Ph. Lambin and A.A. Lucas, Physical Review B 56, 3571-3573 (1997)
232. Low-Frequency Phonon Dynamics of the C₆₀ (111) Surface, A. Glebov, V. Senz, J. P. Toennies, Ph. Lambin, G. Gensterblum, P. Senet and A. A. Lucas, Phys. Rev. B 56, 9874-9880 (1997)
233. Electronic properties of carbon nanotubes containing defects, Ph. Lambin, A.A. Lucas and J.C. Charlier, Journal of Physics and Chemistry of Solids 58, 1833-1837 (1997)
234. Scanning tunneling microscopy of carbon nanotubes produced by catalytic decomposition of acetylene, L.P. Biró, S. Lazarescu, Ph. Lambin, P.A. Thiry, A. Fonseca, J. B.Nagy, and A.A. Lucas, Physical Review B 56, 12490-12498 (1997)
235. Carbon onions as possible carriers of the 2175 Å interstellar absorption bump, L. Henrard, Ph. Lambin, and A.A. Lucas, Astrophysical Journal 487, 719-7XX (1997)
236. Atomic and electronic structures of large and small carbon tori, V. Meunier, Ph. Lambin, A.A. Lucas, Phys. Rev. B 57, 14886-14890 (1998)
237. Scanning tunneling microscopy (STM) imaging of carbon nanotubes. L.P. Biró, J. Gyulai, Ph. Lambin, J. B.Nagy, S. Lazarescu, G.I. Márk, A. Fonseca, P.R. Surján, Zs. Szekeres, P.A. Thiry, and A.A. Lucas, Carbon 36 (1998), 689-696.
238. Low frequency phonon dynamics of C₆₀(111) surface. A. Glebov, V. Senz, J.P. Toennies, Ph. Lambin, G. Gensterblum, P. Senet, and A.A. Lucas, Physical Review B 56 (1997), 9874-80.
239. The diffraction space of circular and polygonized multishell nanotubes. D. Bernaerts, S. Amelinckx, Ph. Lambin, and A.A. Lucas, Applied Physics A 66 (1998), 53-64.
240. Computer simulation of the electron diffraction pattern produced by carbon and boron nitride nanotubes. Ph. Lambin and A.A. Lucas, Algerian Journal of Advanced Materials 1 (1998), 26-39.
241. La pierre de rosette du langage génétique. A. Lucas, Bulletin de la Classe des Sciences, ARB, 6^e série, Tome IX, 7-12, 1998.
242. Revealing the structure of B-DNA from laser optical simulations of its X-ray diffraction diagram A.A. Lucas, Ph. Lambin, R. Mairesse and M. Mathot, J. Chem. Education 76 (1999), 378-383.
243. Electron diffraction and microscopy of carbon nanotubes S. Amelinckx, A. Lucas, and Ph. Lambin, in "The science and technology of carbon nanotubes", K. Tanaka, T. Yamabe, and K. Fukui (Edits.) (Elsevier, Amsterdam, (1999) 14-28.
244. Electron diffraction and microscopy of carbon nanotubes S. Amelinckx, A.A. Lucas, and Ph. Lambin, Rep. Progress Phys. 62 (1999), 1471-1524.

- 245 Measuring the helicity of carbon nanotubes
Ph. Lambin, V. Meunier, L. Henrard, A.A. Lucas. Carbon, 38 (2000) 1713-1721.
246. Electron diffraction by carbon nanotubes
A.A.Lucas, V. Bruyninckx, Ph. Lambin, D. Bernaerts, S. Amelinckx, J. Van Landuyt, and. G. Van Tendeloo, Physicalia Mag. 21 (2000) 233-265.
247. Simulation of scanning tunneling spectroscopy of supported carbon nanotubes
G.I. Mark, L.P. Biro, J. Gyulai, P.A. Thiry, A.A. Lucas, and Ph. Lambin, Phys. Rev. B 62 (2000) 2797-2805.
248. Scanning tunneling microscopy observation of tightly wound, single-wall coiled carbon nanotubes.
L.P. Biro, S.D. Lazarescu, P.A. Thiry, A. Fonseca, J. B.Nagy, A.A. Lucas, and Ph. Lambin, Europhys. Lett. 50 (2000) 494-500.
249. Electron diffraction by carbon nanotubes.
A.A. Llucas, V. Bruyninckx, Ph. Lambin, D. Bernaerts, S. Amelinckx, J. Van Landuyt and G. Van Tendeloo, Physicalia Mag. 21 (1999) 233-265.
250. Uranverein, Alsos et Epsilon.
A.A. Lucas, Bulletin de la Classe des Sciences, Académie Royale de Belgique, 7-12 (2000) 335-359.
251. Diffraction by molecular helices.
A.A. Lucas, Ph. Lambin and F. Moreau, L.P. Biro *et al* (eds), *Carbon Filaments and nanotubes: common origins, differing applications*, Kluwer (2001) 197-204.
252. Collisions in the Universe.
A.A. Lucas and G. Demortier (eds), Revue des Questions Scientifiques 174 (2001)
253. Rosetta Stone of the Genetic Language.
A.A. Lucas, Int. Jour. of Quant. Chem. 90 (2002) 1491-1504
254. Optical simulations of electron diffraction by carbon nanotubes.
A.A. Lucas, F. Moreau and Ph. Lambin, Rev. Modern Physics 74 (2002) 1-10
255. Rings of Double-Wall Carbon Nanotubes.
J.-F. Colomer, L. Henrard, E. Flahaut, G. Van Tendeloo, A.A. Lucas and Ph. Lambin Nano Letters 3 (2003) 685-689
256. Diffraction by DNA, carbon nanotubes and other helical nanostructures.
A.A. Lucas and Ph. Lambin Rep. Prog. Phys. 68 (2005) 1181-1249
257. Bombe atomique et croix gammée
A.A. Lucas, Mémoire de la Classe des Sciences, Académie Royale de Belgique (2005) 7-117
258. Einstein and diffusion phenomena that changed the course of human affairs.
A.A. Lucas, manuscript of an invited conference at the 2005 Symposium on Einstein

259. Van der Waals forces between nanoclusters : importance of many-body effects.
Hye-Young Kim, J. Sofo, D. Velegol, M. Cole and A.A. Lucas, *J. of Chem. Phys.* 124 (2006)
260. Francis Crick et la structure des biomolecules hélicoïdales
Revue des Questions Scientifiques 177 (2006) 297-322
261. Van der Waals dispersion forces between dielectric nanoclusters
Hye-Young Kim, J. Sofo, D. Velegol, M. Cole and A.A. Lucas, *Langmuir* (2007) 1735-1740
262. Revisiting Farm Hall
A.A. Lucas, *Europhysics News* 38 (2007) 25-29
263. Response to Boya's Letter
A.A. Lucas, *Europhysics News* 39 (2008) 14-15
264. Aux Origines de la Prolifération des Armes Nucléaires.
A. A. Lucas, *La Lettre des Académies*,..... (2007).
265. Des Molécules et des Hommes
A.A. Lucas, *Places to Be* 4 (2008) 52-55
266. A-DNA and B-DNA : Comparing their historical X-ray Fiber diffraction images
A.A. Lucas, *J. Chem. Educ.* 85, May (2008) 737-744
267. La Lettre d'Einstein au Président Roosevelt
A.A. Lucas, *Scénario d'une pièce de théâtre* (à paraître)