

**Jean-Marie André – List of Publications :**

**A. Notes de cours/Lecture Notes**

J.M. André,

Introduction à la chimie physique moléculaire,  
Facultés Universitaires ND de la Paix, Namur, 107pp (1973)

J.M. André,

Chimie Physique Moléculaire,  
1. Le spin en chimie,  
Facultés Universitaires ND de la Paix, Namur, 49pp (1973)

J.M. André,

Chimie Physique Moléculaire,  
2. Thermodynamique Moléculaire,  
Facultés Universitaires ND de la Paix, Namur, 86pp (1973)

J.M. André, J. Delhalle,

Mathématiques Appliquées,  
Facultés Universitaires ND de la Paix, Namur, 77pp (1975)

J.M. André, M.Cl. André,

Leçons de chimie-physique moléculaire,  
la théorie des orbitales, 40pp (1985)  
Facultés Universitaires ND de la Paix.

J.M. André, M.Cl. André

Introduction à la chimie quantique,  
Facultés Universitaires ND de la Paix, 142 pp (1993)

J.M. André

Une introduction aux méthodes de solution des équations différentielles à l'usage des chimistes, biologistes et géologues,  
Facultés Universitaires ND de la Paix, 63 pp (1995)

J.M. André

Une introduction à la thermodynamique des systèmes de non-équilibre,  
Facultés Universitaires ND de la Paix, 55 pp (1995)

J.M. André, M.Cl. André

Une introduction à la théorie de la relativité classique et quantique à l'usage des chimistes,  
Facultés Universitaires ND de la Paix, 50 pp (1995)

J.M. André, M.Cl. André

Une introduction à la thermodynamique statistique,  
Facultés Universitaires ND de la Paix, 84 pp (2001)

J.M. André, M.Cl. André  
Une introduction à la chimie quantique,  
Facultés Universitaires ND de la Paix, 146 pp (2001)

J.M. André  
Une introduction aux méthodes de solution des équations différentielles à l'usage des chimistes, biologistes et géologues,  
Facultés Universitaires ND de la Paix, 73 pp (2001)

J.M. André, M.Cl. André  
Une introduction à la théorie de la relativité classique et quantique à l'usage des chimistes, Partie I : relativité classique  
Facultés Universitaires ND de la Paix, 28 pp (2001)

J.M. André  
Une introduction à l'analyse de Fourier à l'usage des chimistes et des géologues,  
Facultés Universitaires ND de la Paix, 62 pp (2001)

J.M. André  
Thermodynamique de non-équilibre, structures dissipatives, bifurcations, chaos et fractales  
Facultés Universitaires ND de la Paix, 89 pp (2001)

## **B. Livres/Books**

(La numérotation fait référence à la liste des publications / *The numbers refer to the list of publications*)

39. J.M. André, J. Ladik, Eds,  
Electronic structure of polymers and molecular crystals,  
Plenum Press, 704 pp, (1975)
57. J.M. André, J. Delhalle, J. Ladik, Eds.,  
Quantum theory of polymers,  
D.Reidel Publishing Company, 376 pp., (1978)
72. J.M. André, J.L. Brédas, J. Delhalle, J. Ladik, G. Leroy, C. Moser, Eds.,  
Recent advances in the quantum theory of polymers,  
Springer-Verlag, 306 pp., (1980)
101. J. Ladik, J.M. André, Eds.,  
Quantum chemistry of polymers: solid state aspects,  
422 pp., D.Reidel Publishing Company, (1984)
188. J.M. André, J. Delhalle, J.L. Brédas,  
Quantum Chemistry Aided Design of Organic Polymers for Molecular Electronics,  
World Scientific Publishing Company, 387 pp (1991)
258. J.M. André, D.H. Mosley, M.C. André, B. Champagne, E. Clementi, J.G. Fripiat, L. Leherte, L. Pisani, D. Vercauteren, M. Vracko  
Exploring Aspects of Computational Chemistry: Concepts,  
Presses Universitaires de Namur, 370 pp (1997)
259. J.M. André, D.H. Mosley, M.C. André, B. Champagne, E. Clementi, J.G. Fripiat, L. Leherte, L. Pisani, D. Vercauteren, M. Vracko  
Exploring Aspects of Computational Chemistry: Exercises,  
Presses Universitaires de Namur, 413 pp (1997)

## C. Travaux Scientifiques/Scientific Papers

1. J.M. André,  
Etude comparative des méthodes de Hückel et de l'électron libre,  
Mémoire de licence/M.Sc report, UCL, Louvain (1965)
2. J.M. André, L. Gouverneur, G. Leroy,  
Etude théorique des systèmes périodiques: I. La méthode LCAO-HCO,  
Int. J. Quantum Chem., 1, 427-450 (1967)
3. J.M. André, L. Gouverneur, G. Leroy,  
Etude théorique des systèmes périodiques: II. La méthode LCAO-SCF-CO,  
Int. J. Quantum Chem., 1, 451-461 (1967)
4. J.M. André, G. Leroy,  
Etude théorique des systèmes périodiques: III. L'orthonormalisation des orbitales atomiques,  
Bull. Soc. Chim. Belges, 76, 651-660 (1967)
5. J.M. André, L. Gouverneur, G. Leroy,  
Etude théorique des propriétés conductrices de semi-conducteurs organiques,  
Bull. Soc. Chim. Belges, 76, 661-677 (1967)
6. J.M. André, G. Leroy,  
Etude théorique d'une chaîne polyénique infinie par la méthode LCAO-SCF-CO,  
Theoret. Chim. Acta, 9, 123-132 (1967)
7. J.M. André,  
Etude théorique de la structure de bandes des systèmes périodiques,  
Dissertation originale de doctorat/Ph.D.thesis, UCL, Louvain (1968)
8. J.M. André,  
La stabilité du code génétique,  
Thèse annexe de doctorat/Ph.D.report, UCL, Louvain (1968)
9. J.M. André, G. Leroy,  
Electronic structure of graphite,  
Int. J. Quantum Chem., 3, 983-999 (1969)
10. J.M. André,  
Self-consistent field theory for the electronic structure of polymers,  
J. Chem. Phys., 50, 1536-1542 (1969)
11. J.M. André, M.C. André, J. Weiler, G. Leroy,  
Theoretical study of isoelectronic systems: diazomethane, ketene and allene,  
Int. J. Quantum Chem., 3, 1013-1025 (1969)
12. J.M. André, G. Leroy,  
On the calculation of polycenter integrals,  
Bull. Soc. Chim. Belges, 78, 421-424 (1969)

13. J.M. André, M.C. André, G. Leroy,  
Theoretical study of small ring compounds: I. Cyclopropene and cyclobutene,  
Bull. Soc. Chim. Belges, 78, 539-551 (1969)
14. J.M. André, M.C. André, G. Leroy,  
Barrier to internal rotation in allene,  
Chem. Phys. Letters, 3, 695-698 (1969)
15. E. Clementi, J.M. André, M.C. André, D. Klint, D. Hahn,  
Ground state for adenine, cytosine, guanine and thymine,  
Acta Phys. Hungarica, 27, 493-521 (1969)
16. J.M. André,  
Etude théorique des systèmes périodiques,  
travail récompensé par le prix scientifique Louis Empain/ Report awarded by the  
Louis Empain scientific prize, UCL, Louvain, (1969)
17. J.M. André, J. Delhalle, G. Leroy,  
Etude théorique des systèmes périodiques : IV. Formulation matricielle de la méthode  
LCAO-SCF-CO,  
Bull. Soc. Chim. Belges, 79, 245-255 (1970)
18. J.M. André, J. Delhalle, G. Leroy,  
Etude théorique des systèmes périodiques : V. Les expressions analytiques des  
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19. J.M. André, G. Leroy,  
Description de méthodes quantiques originales pour calculer la structure de bandes de  
cristaux,  
Ann. Soc. Scient. Brux., 84, 133-174 (1970)
20. J.M. André, G. Leroy,  
All-electrons band structure of polyethylene in the nearest cell approximation,  
Chem. Phys. Lett., 5, 71-74 (1970)
21. J.M. André,  
POLYMOL : a general program for the calculation of ground state wave-functions of  
polymers,  
Comput. Phys. Comm., 1, 391-414 (1970)
22. J.M. André, M.C. André, G. Leroy,  
Theoretical study of small ring compounds : II. Cyclopropane, methylcyclopropane  
and dimethylcyclopropanes,  
Bull. Soc. Chim. Belges, 80, 265-276 (1971)
23. J.M. André, J. Delhalle, J.G. Fripiat, G. Leroy,  
Computation of LCAO wave-functions for ground states of polymers and solids,  
Int. J. Quantum Chem., 5, 67-84 (1971)

24. J.M. André, G. Leroy,  
All-electrons band structure of polyene,  
Int. J. Quantum Chem., 5, 557-563 (1971)
25. J.M. André, M.C. André, G. Leroy,  
Etude théorique de quelques cycles à quatre pièces,  
Theoret. Chim. Acta, 21, 28-43 (1971)
26. J.M. André, G.S. Kapsomenos, G. Leroy,  
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27. J.M. André, Ph. Degand, G. Leroy,  
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28. J.M. André, M.C. André, J. Delhalle, G. Leroy,  
Etude critique de la méthode du champ auto-cohérent LCAO,  
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31. J.M. André,  
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50. J.G. Fripiat, A.A. Lucas, J.M. André, E.G. Derouane,  
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## D. Articles divers

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3. Les sonates pour piano de Beethoven, un corpus beethovénien  
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4. Anton Diabelli, Samuel Barber, Josef Myslivecek  
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5. Un sixième concerto pour piano de Beethoven ?  
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6. Le piano de Schumann  
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7. Le mystérieux trio pour piano, violon et violoncelle op.63 de Beethoven  
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8. Edvard Grieg, un musicien venu du froid  
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9. La sonate "oubliée", D916b de Schubert, éditée par Jörg Demus  
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10. Olivier Messiaen, musicien, musicien de Dieu ou musicien de la nature  
+ éléments de discographie et éléments de bibliographie.  
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## **10. Divers / Varia**

- Compliment à sa Majesté le Roi Baudouin  
Discours de réception du Prix Francqui,  
Fondation universitaire, 22 juin 1991
- Enrico Clementi: Gradus ad Parnassum  
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- Texte de réception de Docteur Honoris Causa  
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- Introduction à l'ouvrage : "Toute la sagesse du monde, Hommage à Maurice Gilbert, s.j.", p. 7-19, (avec Fr. Mies) Presses Universitaires de Namur – Lessius (1999)
- "Semences de curieux", émission de J. Olivier, RTBF-Musique 3  
émission scientifique consacrée aux machines et ordinateurs moléculaires,  
jeudi 30 novembre 2000, 19H10-20H00
- "Semences de curieux", émission de J. Olivier, RTB 1  
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pour les mathématiques : Jean Mawhin  
pour la physique : Marc Henneaux  
pour la chimie : Jean-Marie André  
pour la biologie : Christian de Duve  
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- divers discours d'inauguration d'expositions à la BUMP (2003-2007)
- divers discours lors de la présidence de l'Académie Royale de Belgique et de la présidence du *Collège Belgique* (2008, 2009)