

GREMAN

matériaux microélectronique
acoustique nanotechnologies
UMR 7347 - Université de Tours / CNRS



UFR Sciences & Techniques
Parc de Grandmont - 37200 TOURS
Tel : 02 47 36 69 29

francois.gervais@univ-tours.fr

François Gervais, Ph. D.

**Emeritus Professor, Department of Physics, Faculty of Sciences and Techniques
François Rabelais University, Tours (France)**

Born in 1945

French citizen

Married, 2 children

**Director of LEMA (Laboratory of electrodynamics of advance materials)
from 1996 to 2012, labelled UMR CNRS 6157 since 2002
until its fusion with two other teams to become GREMAN UMR 7347 in 2012**

Vice-chairman of Centre.Sciences

235 peer-reviewed publications

39 proceedings of conferences and other papers

***6 books on SUPERCONDUCTIVITY (Ed. LAVOISIER, Tec & Doc), COMPUTER PROGRAMMING (Ed. SYBEX)
GREENHOUSE EFFECT AND SUSTAINABLE DEVELOPMENT (Ed. ALBIN MICHEL, SCHOLAR'S PRESS)***

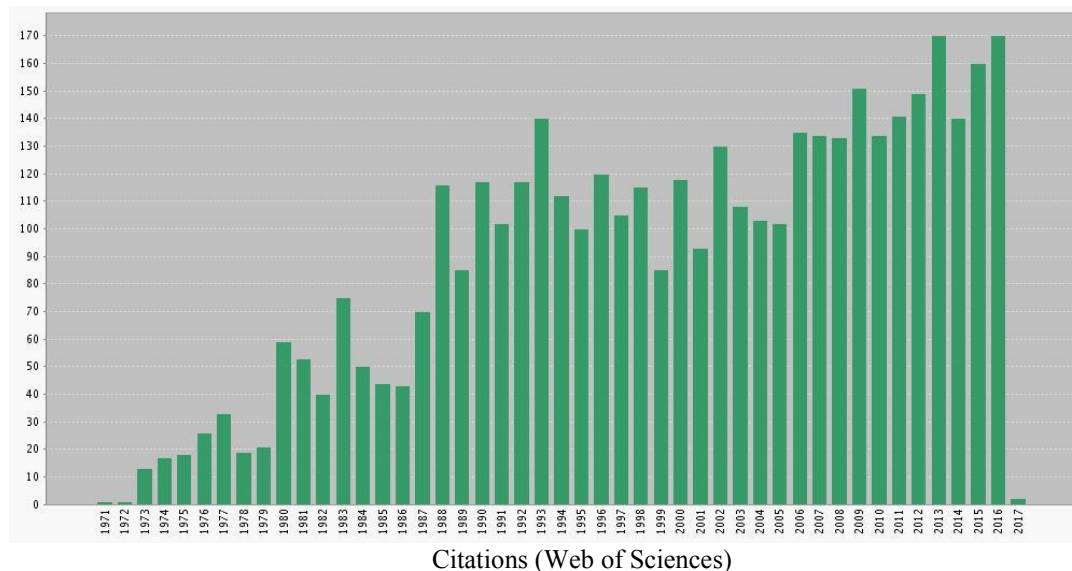
5 chapters of books (Ed. ACADEMIC PRESS, NORTH HOLLAND)

+ 4300 citations in peer-reviewed literature (Web of Science)

H(irsch) index : 39 (Google scholar)

80 invited lectures

81 oral communications in international conferences



- **Officer in the Order of Academic Palms**
- **CNRS Bronze medal (thermodynamics)**
- **Laureate of the Yvan Peyches Prize of the french Academy of Sciences** "for its contribution to the understanding of infrared properties of model oxides to industrial glasses at high temperature"

- 1996–2012** **Founding-Director of Laboratory of electrodynamics of advance materials (LEMA)**
- **Labelled UMR 6157 CNRS/CEA in 2002**
 - *Labelled FRE 2077 CNRS in 2000*
 - *Labelled LRC M01 CEA in 1998*
 - *Labelled EA 2099 in 1996*
- 2006–2011** **Director of the Scientific Council of the Center of studies and technological research in microelectronics (CERTeM)**
- 2005–2011** Scientific advisor of Sphere of competitiveness S2E2 Smart electricity Cluster
« *Sciences & Systems of electric energy* »
- 1999–2006** **Director of the National Center of Technological Research on Power Microelectronics**
- 1996–1999** **Head of GDR 1208 CNRS « Chemical bonding in solids »**
- 1991–1997** **Scientific mission head CNRS (DR8)**
- **Founding Editor of MICROSCOOP**
- 1982–1996** **Vice-director of Center of Research on High-temperature Physics, UPR 4212 CNRS, Orléans**
- 1981–1982** **Max-Planck Institute of Solid State Physics, Stuttgart**
- 1998–2015** **Editor of *COVALENCES*, publication of *Centre.Sciences***
- 1995–2008** **Associate Editor of *MATERIALS SCIENCE & ENGINEERING B***
- 1989–1991** **Coordinator of European Contract ESPRIT II 3327 « Lattice Dynamics of High-T_c Single Crystal Superconductors »**

2006-2009	Workpackage leader of European program STREP NUOTO
2010-2013	Coordinator of project ANR/PNANO/3DCAP
2005-2009	Coordinator of project ANR/PNANO/NANOCOMBI
2011-2012	Expert reviewer of IPCC AR5

Supervisor or co-supervisor of 21 Ph. D. students (1985-2015)

Referee for international journals

American Mineralogist
 Annales de Chimie
 Canadian Mineralogist
 Colloids and Surfaces
 Crystals
 Energies
 European Physics Journal B
 Europhysics Letters
 Ferroelectrics
 High Temperature-high pressure
 Journal of Alloys and Compounds
 Journal de Chimie Physique
 Journal de Physique
 Journal of applied Physics
 Journal of Physical Chemistry
 Journal of Physics C (GB)
 Journal of Physics and Chemistry of Solids
 Materials Science & Engineering
 Physica status solidi
 Physical Review B
 Physical Review Letters
 Solid State Communications
 Spectrochimica Acta
 Vibrational Spectroscopy

Collaboration with companies or agencies

3D-Oxides
 Aérospatiale
 Alcatel
 Alliance Instruments
 CARRAR
 CNES
 Ceramaspeed
 CEA
 Desmarquest
 EDF
 ESA (European Space Agency)
 Mitsubishi
 Norton
 ONERA
 Saint-Gobain-Recherche
 SEP
 SRTmicrocéramique
 STMicroelectronics

Chairman of international conferences or Member of Organizing Committees

LEES 2014, Amboise, 2014

Colloque Louis Néel, Tours, 2013

Colloque of GDR NEEM, Tours, 2007

Journées SOLEIL Région Centre, Orléans, since 2000

Matériaux 2002, Tours

JMC7, Poitiers, 2000

DYPROSO 27, Tours, 1999

Organizer of 2-days meetings of GDR 1208:

Bordeaux, 2000

Piriac, 1999

Paris, 1998

Tours, 1997

Paris, 1996

Paris, 1996

Meeting of GDR « Superconductors » Tours, 1997

14th European Conference on Thermophysical Properties, Lyon, 1996

7th European Meeting on Ferroelectricity, Dijon, 1991

Workshop on Dynamical Properties of superconducting Oxides, Orléans, 1991

Meeting on Ferroelectricity, Orléans, 1988

4th Conference on Thermophysical Properties, Orléans, 1971

Peer-reviewed publications

MATERIALS SCIENCE & ENGINEERING REPORTS (IMPACT FACTOR : 19,75)

1. **F. GERVAIS**, *Optical conductivity of oxides*, 39 (2002) 29-92. **84 citations (Google scholar)**

EARTH-SCIENCE REVIEWS (IMPACT FACTOR : 7,9)

2. **F. GERVAIS**, *Anthropogenic CO₂ warming challenged by 60-year cycle*, 155 (2016) 129-135.

THE PHYSICAL REVIEW B

3. **F. GERVAIS et B. PIRIOU**, *Temperature dependence of transverse and longitudinal optic modes in TiO₂ (rutile)* **10**, 1642-54 (1974).
223 citations
4. **F. GERVAIS et B. PIRIOU**, *Temperature dependence of transverse and longitudinal optic modes in the α and β phases of quartz* **11**, 3944-50 (1975).
166 citations
5. **J.F. BAUMARD et F. GERVAIS**, *Plasmon and polar optical phonon in reduced rutile TiO_{2-x}* **15**, 2316-27 (1977).
6. **F. GERVAIS et J.L. SERVOIN**, *Phonon self-energy in LiTaO₃ and LiNbO₃* **15**, 4532-6 (1977).
7. **J.L. SERVOIN, F. GERVAIS, A.M. QUITTET et Y. LUSPIN**, *Infrared and Raman responses in ferroelectric perovskite crystals : apparent inconsistencies* **21**, 2038-41 (1980).
8. **J.L. SERVOIN, Y. LUSPIN et F. GERVAIS**, *Infrared dispersion in SrTiO₃ at high temperature* **22**, 5501-6 (1980).
177 citations
9. **F. GERVAIS**, *Temperature dependence of polar phonons, plasma excitations and effective charges below the semiconducting-metal phase transition of NbO₂* **23**, 6580-4 (1981).
10. **D. RYTZ, M.D. FONTANA, J.L. SERVOIN et F. GERVAIS**, *High-temperature infrared reflectivity study of the soft mode in KTa_{1-x}Nb_xO₃ for a Nb concentration $x = 0.018$* **28**, 6041-50 (1983).
11. **F. GERVAIS et W. KRESS**, *Lattice dynamics of incipient ferroelectric rutile TiO₂* **28**, 2962-8 (1983).
12. **P. ECHEGUT, F. GERVAIS et N.E. MASSA**, *Pseudosymmetry and infrared activity in the incommensurate phase of A₂BX₄ compounds* **30**, 6039-44 (1984).
13. **F. GERVAIS et W. KRESS**, *Lattice dynamics of oxides with rutile structure and instabilities at the metal-semiconductor phase transitions of NbO₂ and VO₂* **31**, 4809-14 (1985).
128 citations

14. **P. ECHEGUT, F. GERVAIS et N.E. MASSA**, *Persistence up to T_i of ferroelectric-phase-allowed modes in the incommensurate phase of $K_2\text{SeO}_4$* **31**, 581-3 (1985).
15. **P. SIMON et F. GERVAIS**, *Phase-transition mechanism in RbH_2PO_4 -type ferroelectrics* **32**, 468-70 (1985).
16. **P. ECHEGUT, F. GERVAIS et N.E. MASSA**, *Behavior of optic phonons in the commensurate and incommensurate phases of potassium selenate* **34**, 278-91 (1986).
17. **J.M. BASSAT, P. ODIER et F. GERVAIS**, *Two-dimensional plasmon in nonstoichiometric La_2NiO_4* **35**, 7126-8 (1987).
116 citations
18. **P. SIMON, F. GERVAIS et E. COURTENS**, *Paraelectric-ferroelectric phase transitions of KH_2PO_4 , RbH_2PO_4 and KH_2AsO_4 studied by infrared reflectivity* **37**, 1969-79 (1988).
19. **F. GERVAIS, P. ECHEGUT, J.M. BASSAT et P. ODIER**, *Analysis of infrared reflection spectra of oxides of the La_2CuO_4 high- T_c superconductor family in polarized light* **37**, 9364-72 (1988).
112 citations
20. **M.A. PIMENTA, P. ECHEGUT, Y. LUSPIN, G. HAURET, F. GERVAIS et P. ABELARD**, *High-temperature phase transitions in LiKSO_4* **39**, 3361-8 (1989).
21. **L. PINTSCHOVIVUS, J.M. BASSAT, P. ODIER, F. GERVAIS, G. CHEVRIER, W. REICHARDT, F. GOMPF**, *Lattice dynamics of La_2NiO_4* **40**, 2229-38 (1989).
22. **M. LICHERON et F. GERVAIS**, *$\text{Ba}_{2-x}\text{K}_x\text{Pb}_{1-y}\text{Bi}_y\text{O}_{4-\delta}$: layered oxides with insulating or conducting and possible superconducting properties* **47**, 8008-15 (1993).
23. **F. GERVAIS, J.L. SERVOIN, A. BARATOFF, J.G. BEDNORZ,⁽¹⁾ G. BINNIG,⁽²⁾** *Temperature dependence of plasmon in Nb-doped SrTiO_3* **47**, 8187-94 (1993).
109 citations
24. **D. EAGLES, R.P.S.M. LOBO, F. GERVAIS**, *Infrared absorption in oxides in the presence of both large and small polarons* **52**, 6440-50 (1995).
25. **R.P.S.M. LOBO, F. GERVAIS**, *Bismuth disproportionation in BaBiO_3 revisited under the light of infrared-visible reflectance spectra* **52**, 13294-99 (1995).
26. **R.P.S.M. LOBO, F.J. GOTOR, P. ODIER, F. GERVAIS**, *Decoupling excitations in the far-infrared spectra of c-axis $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ single crystal*, **53**, 410-4 (1996).
27. **N. POIROT-REVEAU, P. ODIER, P. SIMON, F. GERVAIS**, *Role of polarons and stripes in the optical conductivity of $\text{La}_2\text{NiO}_{4.11}$* **65** (2002) 094503.
28. **N. H. HONG, J. SAKAI, J. G. NOUEM, F. GERVAIS, M. GERVAIS**, *Anomalous behaviors in $\text{La}_{0.7}\text{Ba}_{0.1}\text{Ca}_{0.2}\text{Mn}_{0.9}\text{Ru}_{0.1}\text{O}_3$ thin films*, **67**, 134412 (2003).
29. **N.H. HONG, J. SAKAI, W. PRELLIER, A. HASSINI, A. RUYTER, F. GERVAIS**, *Ferromagnetism in transition metal-doped TiO_2 thin films*, **70**, 195204 (2004).
230 citations
30. **B. Rousseau, D. De Sousa Meneses, A. Blin, M. Chabin, and P. Echegut, P. Odier, F. Gervais**, *High-temperature behavior of infrared conductivity of a $\text{Pr}_2\text{NiO}_{4+\delta}$ single crystal*, **72** (2005) 104114.
31. **P. Thibaudau, A. Debernardi, V. Ta Phuoc, S. Da Rocha, F. Gervais**, *Phonon anharmonicity in disordered MgAl_2O_4* , **73**, 064305 (2006).
32. **P. Limelette, V. Ta Phuoc, F. Gervais, R. Frésard**, *ω/T scaling of the optical conductivity in strongly correlated layered cobalt oxide* **87**, 035102 (2013).

¹ Nobel Prize of Physics

² Nobel Prize of Physics

JOURNAL OF APPLIED PHYSICS

33. **N. H. HONG, A. RUYTER, F. GERVAIS, W. PRELLIER, J. SAKAI** *Magnetic structure of V:TiO₂ and Cr:TiO₂ thin films from magnetic force microscopy measurements*, **97** (2005) 10D323.
34. **H. Bouyanfif, J. Wolfman, M. El Marssi, Y. Yuzyuk, R. Bodeux, M. Gervais, F. Gervais** *Combinatorial (Ba,Sr)TiO₃ thin film growth : X-ray diffraction and Raman spectroscopy investigation*, **106** (2009) 034108.
35. **Y.K. Vayunandana Reddy, J. Wolfman, C. Autret-Lambert, M. Gervais, F. Gervais**, *Strain relaxation of epitaxial of (Ba Sr)(Zr Ti)O₃ thin films grown on SrTiO₃ substrates by pulse laser deposition*, **107** (2010) 106101.
36. **Guozhen Liu, Jérôme Wolfman, Cécile Autret-Lambert, Joe Sakai, Sylvain Roger, Monique Gervais, François Gervais**, *Microstructural and dielectric properties of Ba_{0.6}Sr_{0.4}Ti_{1-x}Zr_xO₃ based combinatorial thin film capacitors library*, 108 (2010) 114108.
37. **Jie Qiu, Guozhen Liu, Joe Sakai, François Gervais, Jérôme Wolfman**, *Dielectric tunability transition in Ba_{0.6}Sr_{0.4}TiO₃-based capacitors*, 110 (2011) 064114.
38. **N. Jaber, J. Wolfman, C. Daumont, B. Négulescu, A. Ruyter, G. Feuillard, M. Bavencoffe, J. Fortineau, T. Sauvage, B. Courtois, H. Bouyanfif, J.L. Longuet, C. Autret-Lambert, F. Gervais**, *Enhancement of piezoelectric response in Ga doped BiFeO₃ epitaxial thin films*, **117** (2015) 244107.

EUROPHYSICS LETTERS

39. **L. PINTSCHOVUS, J.M. BASSAT, P. ODIER, F. GERVAIS, B. HENNION et W. REICHARDT**, *Phonon anomalies in La₂NiO₄* **5**, 247-52 (1988).
40. **R. LOBO, F. GERVAIS**, *The strange infrared conductivity of superconducting La₂CuO_{4.06}* **37**, 341-6 (1997).

JOURNAL DE PHYSIQUE LETTRES

41. **K.A. MÜLLER,⁽³⁾ Y. LUSPIN, J.L. SERVOIN, F. GERVAIS**, *Displacive-order-disorder crossover at the ferroelectric-paraelectric phase transitions of BaTiO₃ and LiTaO₃* **43**, 537-42 (1982).

JOURNAL DE PHYSIQUE

42. **A.M. QUITTET, J.L. SERVOIN et F. GERVAIS**, *Correlation of the soft modes in the orthorhombic and the cubic phases of KNbO₃* **42**, 493-9 (1981).
43. **F. GERVAIS et J.L. SERVOIN**, *Role of polar phonons in the chemical bound at structural phase transitions characterized by repetitive Fourier spectroscopy* **42**, C6 415-7 (1981).
44. **Y. DANSUI, B. CALES et F. GERVAIS**, *Defect structure and physical properties of strontium titanate* **47**, C1 871-5 (1986).
45. **T. PAROT-RAJAONA, B. COTE, Y. VAILLS et F. GERVAIS**, *Degree of coherence of vibrations in silicate glasses* **2**, C2 227-30 (1992).

³ Nobel Prize of Physics

46. **Yun Jang, Francois Gervais, Yves Lansac**, *A-Site Ordering in Colossal Magnetoresistance Manganite $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$? Molecular Dynamics Simulations and Quantum Mechanics Calculations*, 131 (2009) 094503

JOURNAL OF PHYSICS C — SOLID STATE PHYSICS puis CONDENSED MATTER

47. **F. GERVAIS et B. PIRIOU**, *Anharmonicity in several-polar-mode crystals: adjusting phonon self-energy of TO and LO modes in Al_2O_3 and TiO_2 to fit infrared reflectivity* **7**, 2374-86 (1974).
[274 citations](#)
48. **F. GERVAIS**, *Critical behavior of A_2 -type modes in the vicinity of the phase transition of quartz* **7**, L415-7 (1974).
49. **F. GERVAIS et J.F. BAUMARD**, *Infrared dispersion of niobium dioxide* **12**, 1977-83 (1979).
50. **Y. LUSPIN, J.L. SERVOIN et F. GERVAIS**, *Soft mode spectroscopy in barium titanate* **13**, 3762-73 (1980).
[191 citations](#)
51. **M.D. FONTANA, G. METRAT, J.L. SERVOIN et F. GERVAIS**, *Infrared spectroscopy in KNbO_3 through the successive ferroelectric phase transitions* **16**, 483-514 (1984).
[250 citations](#)
52. **M.A. PIMENTA, P. ECHEGUT et F. GERVAIS**, *High-temperature phase transitions in LiKSO_4 : an infrared spectroscopy study* **19**, 5519-27 (1986).
53. **C. RIDOU, M. ROUSSEAU et F. GERVAIS**, *The temperature dependence of the infrared reflection spectra in the fluoperovskites RbCaF_3 , CsCaF_3 and KZnF_3* **19**, 5757-67 (1986).
54. **V. ZELEZNY, P. SIMON, F. GERVAIS et C. BARTA**, *High-temperature infrared reflectivity spectroscopy in lead chloride* **21**, 4727-36 (1988).
55. **A. BOUMRICHE, P. SIMON, M. ROUSSEAU, J.Y. GESLAND et F. GERVAIS**, *Infrared dispersion of BaLiF_3* **1**, 5613-20 (1989).
56. **F. BREHAT, B. WYNCKE et F. GERVAIS**, *Anisotropy of effective charge in NaNO_2 , NaNO_3 , KNO_3 and CaCO_3* **1**, 9001-8 (1989).
57. **M.L. SANTOS, A. ALMEIDA, M.R. CHAVES, A. KLÖPPERPIEPER, J. ALBERS, J.A. GOMES-MOREIRA, F. GERVAIS**, *Infrared reflectivity spectroscopy of phase transitions in betaine phosphate* **9**, 8119-34 (1997).
58. **M.L. SANTOS, A. ALMEIDA, J.A. MOREIRA, M.R. CHAVES, A. KLÖPPERPIEPER, F. GERVAIS**, *Lattice dynamics, phase transitions and hydrogen effective charges of betaine phosphite : a comparison with betaine phosphate and their deuterated analog*, **10**, 6147-69 (1998).
59. **S. PESSAUD, F. GERVAIS, D. DE SOUSA, R. LOBO, C. CHAMPEAUX, P. MARCHET, A. CATHERINOT, M. LICHERON, J. L. LONGUET, F. RAVEL**, *Optical conductivity of high- T_c cuprate thin films deposited by multi-target laser ablation* **12**, 1517-25 (2000).
60. **P. THIBAUDEAU, F. GERVAIS**, *Ab initio calculation of phonon modes in MgAl_2O_4 spinel* **14** (2002) 3543-52.
61. **N.H. HONG, J. SAKAI, J. G. NOUDEM, A. HASSINI, F. GERVAIS, M. GERVAIS**, *Ru doped $\text{La}_{0.7}(\text{Ba-Ca})_{0.3}\text{MnO}_3$ thin films: Indirect Evidence of Phase Separation* **15** (2003) 6527-6536.
62. **B. PIGNON, G. GRUENER, V.T. PHUOC, F. GERVAIS, C. MARIN, L. AMMOR**, *Comparative infrared study of optimally doped and underdoped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ single crystals*, **20** (2008) 375230.

63. **PETIT N., F. GERVAIS, P. BUVAT, P. HOURQUEBIE, P. TOPART**, *Analysis of infrared reflectivity of conducting polymers : example of camphor-sulphonic-acid-doped polyaniline* **12**, 367-72 (1999).
64. **PETIT N., DAULAN C., SORET J.C., MAIGNAN A., GERVAIS F.**, *Temperature dependence of infrared conductivity of manganites $Pr_{0.7}Ca_{0.3-x}Sr_xMnO_3$ ($x = 0, 0.05$ and 0.2)* **14**, 617-25 (2000).
65. **N. PETIT, V. GARNIER, V. TA PHUOC, R. CAILLARD, A.M. FRELIN, A. RUYTER, I. LAFFEZ, J-C. SORET, A. MAIGNAN, F. GERVAIS**, *Polarized infrared reflectivity study of an oriented ceramic of $Bi_2Sr_2Ca_2Cu_3O_{10+\delta}$ (Bi-2223)* **25** (2002) 423-9.
66. **F. GERVAIS, N. PETIT, C. POPON, P. BUVAT**, *Doping dependence of infrared conductivity of camphor-sulphonic-acid-doped polyaniline* **31** (2003) 47-52.
67. **C. Autret-Lambert, M. Gervais, M. Zaghioui, S. Roger, F. Gervais, N. Raimboux, and P. Simon**, *Temperature dependence of phase separation and magnetic anisotropy by electron spin resonance in $Pr_{0.6}Ca_{0.4}Mn_{0.9}Ru_{0.1}O_3$* , **47** (2005) 207.
68. **S. Krohns, J. Lu, P. Lunkenheimer, V. Brizé, C. Autret-Lambert, M. Gervais, F. Gervais, F. Bourée, F. Porcher, A. Loidl**, *Correlations of structural, magnetic, and dielectric properties of undoped and doped $CaCu_3Ti_4O_{12}$* **72** (2009) 173-182

69. **L. PINTSCHOVIVUS, J.M. BASSAT, P. ODIER, F. GERVAIS, B. HENNION et W. REICHARDT**, *Phonon anomalies in La_2NiO_4* **153**, 276-7 (1988).
70. **F. GERVAIS, P. ECHEGUT, J.M. BASSAT et P. ODIER**, *Plasmon in oxides of the La_2CuO_4 family : infrared reflectivity in polarized light* **153**, 637-8 (1988).
71. **F. GERVAIS**, *Highly-anharmonic lattice dynamics : a scenario to understand superconductivity in oxides* **185**, 2609-10 (1991).
72. **J.P. LOUP, J.M. BASSAT, G. COUTURIER F. GERVAIS et P. ODIER**, *Correlations between optical and electrical properties in La-Sr-Ni-O compounds* **185**, 1005-6 (1991).
73. **M. LICHERON et F. GERVAIS**, *Search for superconductivity in $(Ba_{1-x}K_x)_2Pb_{1-y}Bi_yO_4$* , **185**, 943-4 (1991).
74. **R.P.S.M. LOBO, C. ALLANCON, F.J. GOTOR, J.M. BASSAT, J.P. LOUP, P. ODIER, K. DEMBINSKI, F. GERVAIS, C. CHAMPEAUX, P. MARCHET, A. CATHERINOT**, *Analysis of infrared-visible-near ultraviolet reflectivity of conducting and superconducting oxides*, **235**, 1071-2 (1994).
75. **M. LICHERON, I. REYNAUD, F. GERVAIS, C. CHAMPEAUX, P. MARCHET, A. CATHERINOT, R.P.S.M. LOBO**, *Layered Ba-K-Pb-Bi-O superconductor family : characterization of laser-ablated films* **235**, 709-10 (1994).
76. **F. GERVAIS, R. LOBO**, *Crossover from London to Mattis-Bardeen behavior evidenced by fitting c-axis conductivity spectra of $YBa_2Cu_3O_{7-\delta}$* **282**, 1141-2 (1997).
77. **S. PESSAUD, M. LICHERON, F. GERVAIS, C. CHAMPEAUX, P. MARCHET, A. CATHERINOT**, *Thin films of high- T_c superconducting cuprates by multi-target laser ablation* **282**, 1035-6 (1997).
78. **V. TAPHUOC, V. GARNIER, I. MONOT-LAFFEZ, F. GERVAIS**, *Far-infrared c-axis optical conductivity in an oriented $Bi_2Sr_2Ca_2Cu_3O_{10}$ polycrystal* **408** (2004) 834.
79. **V. Ta Phuoc, V. Garnier, I. Monot-Laffez, F. Gervais**, *Josephson coupling energy and c-axis sum rules in $Bi_2Sr_2Ca_2Cu_3O_{10}$* , **432** (2005) 5–14.
80. **B. Pignon, G. Gruener, V. Ta Phuoc, C. Marin, F. Gervais, L. Ammor**, *Infrared study of $La_{1.92}Sr_{0.08}CuO_4$ and $La_{1.85}Sr_{0.15}CuO_4$ single crystals*, **460** (2007) 868.

APPLIED PHYSICS A

81. **ROMAIN BODEUX, MONIQUE GERVAIS, JÉRÔME WOLFMAN, FRANÇOIS GERVAIS**, Electrical parameters of Schottky contacts in $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ thin film capacitors **116**, 2001-2006 (2014)

ZEITSCHRIFT FÜR PHYSIK B

82. **F. GERVAIS et H. AREND**, Long-wavelength phonons in the four phases of $\{\text{N}(\text{CH}_3)_4\}_2\text{CuCl}_4$ and effective charges **50**, 17-22 (1983).
83. **F. GERVAIS et W. KACZMAREK**, Effective charge of divalent lead : application to the assignment of infrared modes in ferroelectric $\text{Pb}_5\text{Ge}_3\text{O}_{11}$ **51**, 137-43 (1983).
84. **F. GERVAIS, R.P.M.S. LOBO**, Infrared reflectivity spectroscopy of electron-phonon interactions **104**, 681-6 (1997).

INTERNATIONAL JOURNAL OF MODERN PHYSICS B

85. **S. PESSAUD, D. DE SOUSA, R. LOBO, F. GERVAIS**, Extended-Drude model to fit infrared conductivity of cuprate laser ablated films **12**, 3323-5 (1998).
86. **F. GERVAIS, C. DAULAN, A. MAIGNAN, R. LOBO**, Non-conventional infrared conductivity of $\text{La}_2\text{CuO}_{4.06}$ and $\text{Pr}_{0.7}\text{Sr}_{0.2}\text{Ca}_{0.1}\text{MnO}_3$ **12**, 3393-6 (1998).
87. **N. POIROT-REVEAU, F. GERVAIS**, Phase separation and stripes in $\text{Ln}_2\text{MO}_{4+\delta}$ **14** (2000) 3643-3648.
88. **F. GERVAIS, V. TA PHUOC, N. POIROT, C. COQUELET, G. GRUENER, R.P.S.M. LOBO**, Optical conductivity of oxides, **19** (2005) 153-157.
89. **F. Gervais**, Tiny warming of residual anthropogenic CO_2 , **28** (2014) 1450095.

PHYSICS LETTERS A

90. **F. GERVAIS, B. PIRIOU et F. CABANNES**, Temperature dependence of the A_2 vibration modes in α -quartz **41A**, 107-8 (1972).
91. **F. GERVAIS, P. ECHEGUT, P. SIMON, G. HAURET et H. AREND**, Giant broadening of EPR linewidth near the incommensurate phase transitions of $\{\text{N}(\text{CH}_3)_4\}_2\text{CuCl}_4$ **114A**, 509-10 (1986).

JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS

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- 322. Ioffe Institute, Saint Petersburg (1975)
- 323. Hanscom Air Force Base-USA (1981)
- 324. MPI Stuttgart (1981)
- 325. University of Würzburg (1982)
- 326. IBM Zürich (1982)
- 327. University of Belo Horizonte (1992)
- 328. University of Braga (1996)
- 329. University of Louvain la Neuve (1997)
- 330. New York (2005)
- 331. GIST Gwangju (2007)
- 332. University of Seoul (2007)
- 333. University of Catania (2008)

Public lectures (in french) on materials science, new superconductors, energy, greenhouse effect, energetic transition and sustainable development, invited by:

- 334. Muséum of Orléans (1995)
- 335. SIRITT of Bourges 1995)
- 336. 4th Scientific Meeting of Région Centre (1997)
- 337. « Détours en sciences » (2002)
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