

Dr François Gervais

**Professor retired from Department of Physics, Faculty of Sciences and Techniques
University of 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**

Former vice-chairman of Centre.Sciences

Member of Editorial Board of Materials Science & Engineering B

244 peer-reviewed publications

45 proceedings of conferences and other papers

12 books (3 in english)

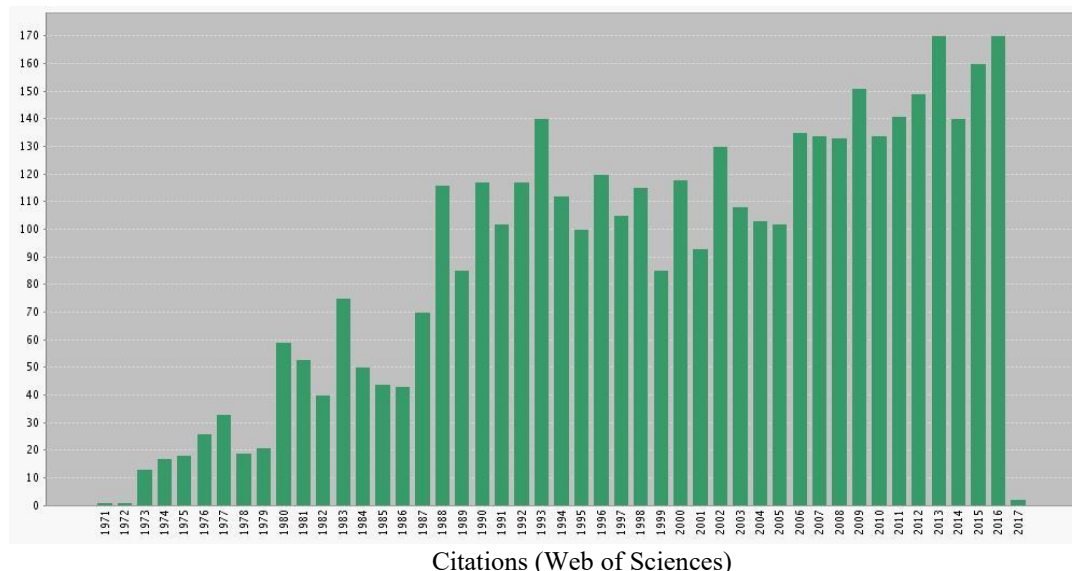
5 chapters of books (ED. ACADEMIC PRESS, NORTH HOLLAND)

+ 5000 citations in peer-reviewed literature

H(irsch) index : 43 (Google scholar)

104 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 • <i>Labelled FRE 2077 CNRS in 2000</i> • <i>Labelled LRC Mo1 CEA in 1998</i> • <i>Labelled EA 2099 in 1996</i>
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 « <i>Sciences & Systems of electric energy</i> »
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 <i>COVALENCES</i> , publication of <i>Centre.Sciences</i>
1995-	Associate Editor of <i>MATERIALS SCIENCE & ENGINEERING B</i>
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-	Expert reviewer of IPCC AR5 and AR6
2018	Reviewer of NIPCC Climate change reconsidered II: Fossil fuels

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
 Condensed Matter
 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
 Ocean & Coastal Management
 Physica status solidi
 Physical Review B
 Physical Review Letters
 Polymers
 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 du 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. [104 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).
[293 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).
[225 citations](#)
5. J.F. BAUMARD et F. GERVAIS, *Plasmon and polar optical phonon in reduced rutile TiO_{2-x}* **15**, 2316-27 (1977).
[113 citations](#)
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).
[210 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).
[164 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).
125 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).
122 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). **131 citations**
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).
143 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. NOUDEM, 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).
257 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 $\text{Pr}_2\text{NiO}_{4+d}$ 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.
39. **N. Merad, D.M. Neasca, J.P. Rusiecki, S. Roger, F. Gervais, C. Autret-Lambert, O. Motret**, *Innovative non-thermal plasma coating for "core-shell" CaCu₃Ti₃O₁₂ material* **130** (2021) 163305.

EUROPHYSICS LETTERS

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

JOURNAL DE PHYSIQUE LETTRES

42. **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

43. **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).
44. **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).
45. **Y. DANSUI, B. CALES et F. GERVAIS**, *Defect structure and physical properties of strontium titanate* **47**, C1 871-5 (1986).
46. **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

47. **M. RAMES, V. ZELEZNY, V. TA PHUOC, F. GERVAIS, T. WOLF, M. JIRSA**, *Structural properties of (Nd_{0.33}Eu_{0.2}Gd_{0.47})Ba₂Cu₃O₇ studied by magnetic and infrared measurements*, Conf. Series **234**, 012032 (2010).

JOURNAL OF CHEMICAL PHYSICS

48. **Yun Jang, Francois Gervais, Yves Lansac**, *A-Site Ordering in Colossal Magnetoresistance Manganite La_{1-x}Sr_xMnO₃ ? Molecular Dynamics Simulations and Quantum Mechanics Calculations*, 131 (2009) 094503

JOURNAL OF PHYSICS C — SOLID STATE PHYSICS then CONDENSED MATTER

49. **F. GERVAIS et B. PIRIOU**, *Anharmonicity in several-polar-mode crystals: adjusting phonon self-energy of TO and LO modes in Al₂O₃ and TiO₂ to fit infrared reflectivity* **7**, 2374-86 (1974).
[373 citations](#)
50. **F. GERVAIS**, *Critical behavior of A₂-type modes in the vicinity of the phase transition of quartz* **7**, L415-7 (1974).
51. **F. GERVAIS et J.F. BAUMARD**, *Infrared dispersion of niobium dioxide* **12**, 1977-83 (1979).
52. **Y. LUSPIN, J.L. SERVOIN et F. GERVAIS**, *Soft mode spectroscopy in barium titanate* **13**, 3762-73 (1980).
[247 citations](#)
53. **M.D. FONTANA, G. METRAT, J.L. SERVOIN et F. GERVAIS**, *Infrared spectroscopy in KNbO₃ through the successive ferroelectric phase transitions* **16**, 483-514 (1984).
[303 citations](#)
54. **M.A. PIMENTA, P. ECHEGUT et F. GERVAIS**, *High-temperature phase transitions in LiKSO₄ : an infrared spectroscopy study* **19**, 5519-27 (1986).
55. **C. RIDOU, M. ROUSSEAU et F. GERVAIS**, *The temperature dependence of the infrared reflection spectra in the fluoperovskites RbCaF₃, CsCaF₃ and KZnF₃* **19**, 5757-67 (1986).
56. **V. ZELEZNY, P. SIMON, F. GERVAIS et C. BARTA**, *High-temperature infrared reflectivity spectroscopy in lead chloride* **21**, 4727-36 (1988).
57. **A. BOUMRICHE, P. SIMON, M. ROUSSEAU, J.Y. GESLAND et F. GERVAIS**, *Infrared dispersion of BaLiF₃* **1**, 5613-20 (1989).
58. **F. BREHAT, B. WYNCKE et F. GERVAIS**, *Anisotropy of effective charge in NaNO₂, NaNO₃, KNO₃ and CaCO₃* **1**, 9001-8 (1989).
59. **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).
60. **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).
61. **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).
62. **P. THIBAUDEAU, F. GERVAIS**, *Ab initio calculation of phonon modes in MgAl₂O₄ spinel* **14** (2002) 3543-52.
63. **N.H. HONG, J. SAKAI, J. G. NOUDEM, A. HASSINI, F. GERVAIS, M. GERVAIS**, *Ru doped La_{0.7}(Ba-Ca)_{0.3}MnO₃ thin films: Indirect Evidence of Phase Separation* **15** (2003) 6527-6536.

64. **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.

EUROPEAN PHYSICS JOURNAL B

65. **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).
66. **PETIT N., DAULAN C., SORET J.C., MAIGNAN A., GERVAIS F.**, *Temperature dependence of infrared conductivity of manganites $\text{Pr}_{0.7}\text{Ca}_{0.3-x}\text{Sr}_x\text{MnO}_3$ ($x = 0, 0.05$ and 0.2)* **14**, 617-25 (2000).
67. **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 $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+\delta}$ (Bi-2223)* **25** (2002) 423-9.
68. **F. GERVAIS, N. PETIT, C. POPON, P. BUVAT**, *Doping dependence of infrared conductivity of camphor-sulphonic-acid-doped polyaniline* **31** (2003) 47-52.
69. **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 $\text{Pr}_{0.6}\text{Ca}_{0.4}\text{Mn}_{0.9}\text{Ru}_{0.1}\text{O}_3$* , **47** (2005) 207.
70. **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 $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$* **72** (2009) 173-182

PHYSICA C

71. **L. PINTSCHOVIVUS, J.M. BASSAT, P. ODIER, F. GERVAIS, B. HENNION et W. REICHARDT**, *Phonon anomalies in La_2NiO_4* **153**, 276-7 (1988).
72. **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).
73. **F. GERVAIS**, *Highly-anharmonic lattice dynamics : a scenario to understand superconductivity in oxides* **185**, 2609-10 (1991).
74. **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).
75. **M. LICHERON et F. GERVAIS**, *Search for superconductivity in $(\text{Ba}_{1-x}\text{K}_x)_2\text{Pb}_{1-y}\text{Bi}_y\text{O}_4$* , **185**, 943-4 (1991).
76. **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).
77. **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).
78. **F. GERVAIS, R. LOBO**, *Crossover from London to Mattis-Bardeen behavior evidenced by fitting c-axis conductivity spectra of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$* , **282**, 1141-2 (1997).
79. **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).
80. **V. TAPHUOC, V. GARNIER, I. MONOT-LAFFEZ, F. GERVAIS**, *Far-infrared c-axis optical conductivity in an oriented $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10}$ polycrystal* **408** (2004) 834.
81. **V. Ta Phuoc, V. Garnier, I. Monot-Laffez, F. Gervais**, *Josephson coupling energy and c-axis sum rules in $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10}$* , **432** (2005) 5–14.
82. **B. Pignon, G. Gruener, V. Ta Phuoc, C. Marin, F. Gervais, L. Ammor**, *Infrared study of $\text{La}_{1.92}\text{Sr}_{0.08}\text{CuO}_4$ and $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$ single crystals*, **460** (2007) 868.

APPLIED PHYSICS A

83. **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

84. **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).
85. **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).
86. **F. GERVAIS, R.P.M.S. LOBO**, Infrared reflectivity spectroscopy of electron-phonon interactions **104**, 681-6 (1997).

INTERNATIONAL JOURNAL OF MODERN PHYSICS B

87. **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).
88. **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).
89. **N. POIROT-REVEAU, F. GERVAIS**, Phase separation and stripes in $\text{Ln}_2\text{MO}_{4+\delta}$ **14** (2000) 3643-3648.
90. **F. GERVAIS, V. TA PHUOC, N. POIROT, C. COQUELET, G. GRUENER, R.P.S.M. LOBO**, Optical conductivity of oxides, **19** (2005) 153-157.
91. **F. Gervais**, Tiny warming of residual anthropogenic CO_2 , **28** (2014) 1450095.

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333. **Microélectronique de puissance**, French-Bresilian Forum on innovation, Porto Alegre, 2001.
334. **Optical conductivity of oxides**, New3SC-5 New Theories, Discoveries and Applications of Superconductors and related materials, Chongqing, 2004.
335. **High Temperature oxyde superconductors – Open questions and perspectives of applications** Meeting celebrating 20 years of the discovery of high-temperature superconductivity, Santiago de Compostelle, 2006.
336. **Perspectives d'intégration de condensateurs planaires et 3D formés d'oxydes de structure perovskite et dérivées**, Workshop Oxydes fonctionnels pour l'intégration en micro- et nanoélectronique, Autrans, 2008.
337. **Thin film deposition by physical methods**, NUOTO final report, Catania, 2009.
338. **Les oxydes de structure pérovskite et dérivées : quelques propriétés remarquables de ces matériaux**, Journées de la Société Chimique de France, La Rochelle, 2010.
339. **Procédé d'enduction capillaire d'oxydes mixtes pour la réalisation de condensateurs 3D à très forte capacité spécifique intéressant l'électronique nomade**, J3N, Bordeaux, 2012.
340. **Tiny CO₂ warming challenged by Earth greening**, London Climate Change Conference 2016.
341. **CO₂-induzierte Erwärmung vs. gesteigertem Pflanzenwachstum**, 10th International Conference on climate and energy, Berlin, 2016.
342. **CO₂-induced warming vs. increased growth of plants**, 11th International Conference on climate and energy, Düsseldorf, 2017.
343. **Cooling of climate sensitivity**, Basic Science of a changing climate, University of Porto, 2018.

Lectures or seminars in foreign universities or institutes invited by:

344. Ioffe Institute, Saint Petersburg (1975)
345. Hanscom Air Force Base-USA (1981)
346. MPI Stuttgart (1981)
347. University of Würzburg (1982)
348. IBM Zürich (1982)
349. University of Belo Horizonte (1992)
350. University of Braga (1996)
351. University of Louvain la Neuve (1997)
352. New York (2005)
353. GIST Gwangju (2007)
354. University of Seoul (2007)
355. University of Catania (2008)

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

356. Muséum of Orléans (1995)
357. SIRITT of Bourges 1995)
358. 4th Scientific Meeting of Région Centre (1997)
359. « Détours en sciences » (2002)
360. « Campus Grandmont » (2005)
361. Café des Sciences - World year of Physics (2005)
362. « Materials with remarkable properties », Forum of Ph. D. students, University of Tours, 2008
363. Sciences education Meeting: « New energy sources », Tours (2009)
364. Engineers and Scientists of Touraine & Centre.Sciences, Tours (2010)
365. « Energy, ressources and recycling » Wednesdays of Thélème, Tours (2011).
366. En cas de physique, Tours (2012).
367. Université inter-âges, Saumur (2013).
368. Collège inter-âges, La Baule (2013).
369. Institute of Management of Rennes, Rennes (2014).
370. Rencontrer-Interroger-Connaître & Centre.Sciences, Tours (2014).
371. Group HEC Alumni Geostrategies, Paris (2014)
372. Coordination Rurale (agricultural trade union), yearly Meeting, Agen (2014)
373. Coordination Rurale, regional meeting, Saintes (2015)
374. Solidarity & Progress, Paris (2015)
375. International Conference of Schiller Institute, Paris (2015)
376. Association Realities and International relations, IPSEC, Paris (2015)
377. Society of Geography, Tours (2015)

378. ACR, Paris (2015).
379. Townhall of Livry-Gargan (2015).
380. UTL (University of free time of François Rabelais University) Tours (2016).
381. UTL, Fondettes (2016).
382. Townhall of Livry-Gargan (2016).
383. Institute of Locarn (2016).
384. ACR, Paris (2016).
385. Academy of Touraine, Tours (2016).
386. French community of Thailand, videoconference in Bangkok (2016)
387. School of Management of Normandy, Le Havre (2017).
388. UTL, Saint-Cyr sur Loire (2017).
389. UTLV, Vendôme (2017)
390. French Society of Nuclear Energy PACA, Marseille (2018)
391. Society of Ingenieurs & Scientist of France, Centre Val de Loire, Polytech'Tours (2018)
392. MNLE, Montreuil (2018)
393. Solidarity and Progress, Clichy (2018)
394. ACR, Paris (2018)
395. UTL, University of Tours (2019)
396. France Sovereignty, Orléans (2019)
397. Perspectives 45, Olivet (2019)
398. Rotary Club, Paris (2020)
399. Deputies of french parliament, Paris (2020)
400. PRISME (club of CEO of the region of Lyon) videoconference (2020)
401. Interdisciplinary University of Paris, videoconference (2021)
402. Cercle Frédéric Bastiat, videoconférence (2021)
403. Demi-siècle (Half-century club), Tours (2021)
404. MCF, Lyon (2022)
405. La Tour Blanche (2022)
406. Frédéric Bastiat Circle, Week-end of liberty, Dax (2022)
407. Well-being in Loudunais, Loudun (2022)
408. Townhall of Carnoux en Provence (2023)
409. ACR of Brittany (2023)
410. Lyons Club of Valence (2023)
411. Association of High Valley of Aude, Luc sur Aude (2023)