

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

Co-editor of Science of Climate Change

245 peer-reviewed publications

45 proceedings of conferences and other papers

12 books (3 in english)

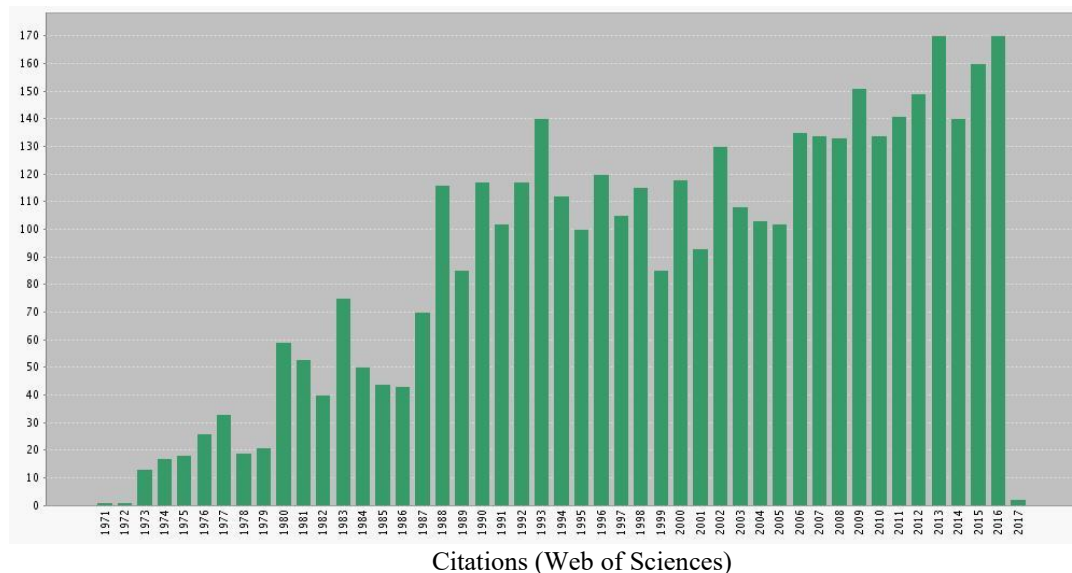
6 chapters of books

+ 5400 citations in peer-reviewed literature

H(irsch) index : 43 (Google scholar)

106 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
2024-	Co-editor of Science of Climate Change

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

Referee for international journals

American Mineralogist
 Annales de Chimie
 Atmosphere
 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
 Science of Climate Change
 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. 117 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).
299 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).
230 citations
5. J.F. BAUMARD et F. GERVAIS, *Plasmon and polar optical phonon in reduced rutile TiO_{2-x}* **15**, 2316-27 (1977).
115 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).
226 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).

172 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).

119 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). 135 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).

144 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).

262 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. PINTSCHOVIVUS, 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).

³ Nobel Prize of Physics

46. **T. PAROT-RAJAONA, B. COTE, Y. VAILLS et F. GERVAIS**, *Degree of coherence of vibrations in silicate glasses* **2**, C2 227-30 (1992).
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).
409 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).
252 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).
308 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. NOUEM, 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.
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.

PHYSICS LETTERS A

92. **F. GERVAIS, B. PIRIOU et F. CABANNES**, Temperature dependence of the A_2 vibration modes in α -quartz **41A**, 107-8 (1972).
93. **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

94. **F. GERVAIS, B. PIRIOU et F. CABANNES**, Anharmonicity in silicate crystals : temperature dependence of A_U -type vibrational modes in ZrSiO_4 and $\text{LiAlSi}_2\text{O}_6$ **34**, 1785-96 (1973).
95. **Y. LUSPIN, J.L. SERVOIN et F. GERVAIS**, Critical behavior of polar modes in lead phosphate near the ferroelastic phase transition **40**, 661-8 (1978).

96. **F. GERVAIS**, *On the phonon self-energy* **13**, 1211-4 (1973).
97. **F. GERVAIS**, *Effective charges in binary and ternary oxide compounds* **18**, 191-8 (1976). [104 citations](#)
98. **F. GERVAIS, B. PIRIOU et D. BILLARD**, *Infrared damping divergence in quartz* **17**, 861-5 (1977).
99. **F. GERVAIS et J.F. BAUMARD**, *LO phonon-plasmon coupling in non-stoichiometric rutile TiO₂* **21**, 861-5 (1977).
100. **Y. LUSPIN, J.L. SERVOIN et F. GERVAIS**, *Infrared dispersion of lead phosphate at room temperature* **27**, 1101-4 (1978).
101. **J.L. SERVOIN et F. GERVAIS**, *Soft vibrational modes in LiNbO₃ and LiTaO₃* **31**, 387-91 (1979).
102. **F. GERVAIS, J.L. SERVOIN, J.F. BAUMARD et F. DENOYER**, *Zone-center soft mode behavior in the cubic phase of NaNbO₃* **41**, 345-9 (1982).
103. **F. GERVAIS et J. LECOMTE**, *Infrared reflectivity analysis of perovskite ceramics Sr(Sr_{1/3}Nb_{2/3})O₃* **53**, 711-3 (1985).
104. **P. ECHEGUT, F. GERVAIS, G. HAURET et Y. LUSPIN**, *Infrared dispersion of potassium zinc chloride* **50**, 561-3 (1984).
105. **F. GERVAIS, P. ODIER et Y. NIGARA**, *Plasmon behavior at the, "semiconductor-metal phase transition in La₂NiO₄ and La₃Ni₂O₇* **56**, 371-4 (1985).
106. **F. GERVAIS, A. BLIN et M.H. CHOPINET**, *Fano effect in glasses* **65**, 653-5 (1988).
107. **F. GERVAIS, J.M. BASSAT, P. de RANGO, P. SIMON et P. ODIER**, *Electron paramagnetic resonance of La_{1.85}Sr_{0.15}CuO₄, La₂CuO₄ and La₂NiO₄ doped with Gd³⁺* **67**, 307-10 (1988).
108. **P. ECHEGUT, F. GERVAIS, K. DEMBINSKY, M. GERVAIS et P. ODIER**, *Polar phonon modes in YBa₂Cu₃O_{6.4}* **69**, 359-62 (1989).
109. **M. LICHERON, F. GERVAIS, J. COUTURES et J. CHOISNET**, *"Ba₂BiO₄" surprisingly found as a cubic double perovskite Ba₂(Ba_{2/3}Bi_{1/3})BiO_{6-x}* **75**, 759-63 (1990).
110. **M. LICHERON, N. LISSART et F. GERVAIS**, *Electron paramagnetic resonance of BaPbO₃, Ba₄Pb₃O₁₀, Ba₂PbO₄ and bismuth-substituted compounds doped with Gd³⁺* **79**, 667-80 (1991).
111. **Y. VAILLS, Y. LUSPIN, G. HAURET, B. COTE et F. GERVAIS**, *Elastic properties of sodium calcium silica glasses by Brillouin scattering*, **82**, 221-4 (1992).
112. **F. GERVAIS, R.P.S.M. LOBO, C. ALLENCON, N. PELLERIN, J.M. BASSAT, J.P. LOUP, P. ODIER**, *Analysis of infrared reflectivity of Pr₂NiO₄ single crystal*, **88**, 245-9 (1993).
113. **R.P.S.M. LOBO, C. ALLENCON, K. DEMBINSKI, P. ODIER, F. GERVAIS**, *Infrared reflection study of two-dimensional structural phase transition in stoichiometric Pr₂NiO₄*, **88**, 349-53 (1993).
114. **X. GOUIN, R. MARCHAND, Y. LAURENT, F. GERVAIS**, *Infrared dielectric responses of BaTaO₂N* **93**, 857-859 (1995).
115. **R.P.S.M. LOBO, F. GERVAIS**, *Infrared signature of charge disproportionation in BaBiO₃ and related compounds* **98**, 61-3 (1996).
116. **N. PETIT, J.C. SORET et F. GERVAIS**, *Analysis of temperature and concentration dependence of optical conductivity of BaPb_{1-x}Bi_xO₃ revisited* **110**, 621-6 (1999).

APPLIED SURFACE SCIENCE

117. **L. Goux, M. Gervais, F. Gervais, C. Champeaux, A. Catherinot**, *Strongly oriented BST films on La_{0.9}Sr_{1.1}NiO₄ electrodes deposited on various substrates for integration of high capacitances on silicon* **252** (2006) 3085.

SOLID STATE SCIENCES

118. **A. HASSINI, M. GERVAIS, S. ROGER, P. SIMON, J. LECOMTE, N. RAIMBOUX, F. GERVAIS**, *Upshift of ferromagnetic-paramagnetic phase transition temperature of La_{0.8}Sr_{0.2}Mn_{1-x}Ru_xO₃ probed by electron spin resonance* **4**, 907-910 (2002).
119. **N. POIROT, P. ODIER, P. SIMON, F. GERVAIS**, *Role of magnetic fluctuations on the temperature dependence of the resistivity of a La₂NiO_{4.11} single crystal*, **5** (2003) 735-739.
120. **J. G. NOUEM, A. HASSINI, M. GERVAIS AND F. GERVAIS** *Processing and physical properties of La_{0.8-z}Y_zSr_{0.2}MnO₃ bulk, thick films and single crystal*, **5** (2003) 1001-1007.
121. **C. AUTRET, M. GERVAIS, F. GERVAIS, N. RAIMBOUX, P. SIMON**, *Signature of ferromagnetism, antiferromagnetism, charge ordering and phase separation by electron paramagnetic resonance study in rare earth manganites, Ln_{1-x}A_xMnO₃ (Ln = rare earth, A = Ca, Sr)* **6** (2004) 815-24.
122. **N. POIROT, V. TA PHUOC, G. GRUENER, F. GERVAIS**, *Dependence of optical conductivity with δ in La₂NiO_{4+ δ} single crystals* **7** (2005) 1157–1162.
123. **C. Autret-Lambert, M. Gervais, F. Gervais, P. Simon, N. Raimboux**, *Role of Y and Ba doping on phase separation and magnetization steps in Nd_{0.5}Sr_{0.5}MnO₃ by electron spin resonance*, **7** (2005) 1035-42.
124. **Virginie Brizé, Cécile Autret-Lambert, Jérôme Wolfman, Monique Gervais, Patrick Simon, François Gervais**, *Temperature dependence of electron spin resonance in CaCu₃Ti₄O₁₂ substituted with transition metal elements* **11** (2009) 875-80.
125. **M. El Amrani, V. Ta Phuoc, M.R. Ammar, M. Zaghrioui, F. Gervais**, *Structural modifications of disordered YMn_{1-x}In_xO₃ solid solutions evidenced by infrared and Raman spectroscopies*, **14** (2012) 1315-20.
126. **S. De Almeida-Didry, C. Autret, C. Honstetter, A. Lucas, F. Pacreau, F. Gervais**, *Capacitance scaling of grain boundaries with colossal permittivity of CaCu₃Ti₄O₁₂-based materials*, **42** (2015) 25-29.
127. **S. De Almeida-Didry, C. Autret, C. Honstetter, A. Lucas, M. Zaghrioui, F. Pacreau, F. Gervais**, *Central role of TiO₂ anatase grain boundaries on resistivity of CaCu₃Ti₄O₁₂-based materials probed by Raman spectroscopy*, doi: 10.1016/j.solidstatesciences.2016.07.010.
128. **C. Autret-Lambert, M. Gervais, S. Roger, F. Gervais, M. Lethiecq, N. Raimboux, P. Simon**, *Inhomogeneous magnetism studied by ESR in La_{1-x}Sr_xMnO₃ (0.45 ≤ x ≤ 0.62)* **71** (2017) 139-145.
129. **S. De Almeida-Didry, C. Autret, A. Lucas, F. Pacreau, F. Gervais**, *Comparison of colossal permittivity of CaCu₃Ti₄O₁₂ with commercial grain boundary barrier layer capacitor*, **96** (2019) 195943.
130. **S. De Almeida-Didry, S. Merad, C. Autret, M.M. Nomel, A. Lucas, F. Gervais**, *A core-shell synthesis of CaCu₃Ti₄O₁₂ (CCTO) ceramics showing colossal permittivity and low electric losses for application in capacitors*, **109** (2020) 106431.

OPTIC COMMUNICATIONS

131. **F. GERVAIS**, *Infrared dispersion in several-polar-mode crystals* **22**, 116-8 (1977).

SOLID STATE IONICS

132. **M.A. PIMENTA, P. ECHEGUT, F. GERVAIS et P. ABELARD**, *Lithium conductivity in LiKSO₄ assisted by sulphate orientational disorder* **28**, 224-7 (1988).

IONICS

133. **F. KALDEC, P. SIMON, J. PETZELT, F. GERVAIS**, *Dynamics of the proton transport in the $\text{Cs}_5\text{H}_3(\text{SO}_4)_4 \cdot x\text{H}_2\text{O}$ superionic conductor (PCHS) 2*, 235-40 (1996).

JOURNAL OF CRYSTAL GROWTH

134. **Joe Sakai, Cécile Autret-Lambert, Thierry Sauvage, Blandine Courtois, Jérôme Wolfman, François Gervais**, *Epitaxial composition-graded perovskite films grown by a dual-beam pulsed laser deposition method* **380**, 106-110 (2013).

MATERIALS SCIENCE AND ENGINEERING B

135. **J.M. BASSAT, F. GERVAIS, P. ODIER et J.P. LOUP**, *Anisotropic transport properties of La_2NiO_4 single crystals* **3**, 507-14 (1989).
136. **M. LICHERON et F. GERVAIS**, *New Materials in the layered system $(\text{Ba}_{1-x}\text{K}_x)_{1+n}(\text{Pb}_{1-y}\text{Bi}_y)_n\text{O}_{3n+1-d}$ synthesis, structure and charge carriers* **6**, 61-6 (1990).
137. **F. GERVAIS**, *Anisotropic screening of oxygen polarisabilities - A scenario to understand superconductivity in oxides* **8** 71-9 (1991).
138. **F. SERONDE, P. ECHEGUT, J.P. COUTURES et F. GERVAIS**, *Emissivity of oxides : a microscopic approach to glass coatings* **8** 315-27 (1991).
139. **M. LICHERON et F. GERVAIS**, *Superconductivity in a layered oxide without magnetic ion* **15**, L1-4 (1992).
140. **S. LE FLOCH, M. GERVAIS, F. GERVAIS**, *Infrared reflectivity study of the metastable solid solution $\text{Y}_2\text{O}_3\text{-Al}_2\text{O}_3$ on both sides of the YAG yttrium aluminium garnet $\text{Y}_3\text{Al}_5\text{O}_{12}$ composition* **33**, 217-21 (1995).
141. **R.P.S.M. LOBO, F. GERVAIS, C. CHAMPEAUX, P. MARCHET, A. CATHERINOT**, *Unexpected behavior of infrared reflectivity of an $\text{YBa}_2\text{Cu}_3\text{O}_{7-d}$ oriented film* **34**, 74-9 (1995).
142. **S. PESSAUD, F. GERVAIS, C. CHAMPEAUX, P. MARCHET, A. CATHERINOT, M. LICHERON, J. L. LONGUET, F. RAVEL**, *Combinatorial solid state chemistry by multitarget laser ablation : a way for the elaboration of new superconducting cuprates thin films ?* **60**, 205-11 (1999).
143. **F. GERVAIS, J. LECOMTE, M. COTTE, F. SCHOESTEIN, M. GERVAIS, A. MAIGNAN, P. SIMON**, *Electron paramagnetic resonance of cerium and alkali-doped manganites : a tool for fast characterisation within a combinatorial chemistry approach* **77**, 11-4 (2000).
144. **J. COULON, A. HASSINI, M. GERVAIS, A. DOUY, C. CHAMPEAUX, J. LECOMTE, L. AMMOR, A. CATHERINOT, F. GERVAIS**, *Optical and electrical conductivity of $\text{La}_{0.8}\text{Sr}_{0.2}\text{MnO}_3$ thin films deposited by laser ablation* **83**, 227-30 (2001).
145. **S. PESSAUD, F. GERVAIS**, *Parameterization of optical conductivity of the prototypic high- T_c cuprate $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$* **86**, 200-5 (2001).
146. **A. HASSINI, M. GERVAIS, J. COULON, V. TA PHUOC, F. GERVAIS**, *Synthesis of $\text{Ca}_{0.25}\text{Cu}_{0.75}\text{TiO}_3$ and infrared characterization of role played by copper*, **87**, 164-8 (2001).
147. **N. H. HONG, J. SAKAI, A. HASSINI, J. G. NOUDEM, M. GERVAIS, F. GERVAIS**, *Doping Ru/Cr on B-site of La-(Ba-Ca)-Mn-O thin films: driving insulator-to-metal transition temperature far apart from Curie temperature*, **104** (2003) 137-140.
148. **V. TaPhuoc, R. Sopracase, G. Gruener, J. C. Soret, F. Gervais, A. Maignan and C. Martin** *Charge ordering and phonon anomalies in $\text{Pr}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$* , **104** (2003) 131-136.

149. J. COULON, A. HASSINI, M. GERVAIS, F. GERVAIS, C. CHAMPEAUX A. CATHERINOT *Growing and characterization of $\text{La}_{0.8}\text{Sr}_{0.2}\text{MnO}_3$ thin films on single crystal oxide substrate* **104** (2003) 141-144
150. N. POIROT, F. GERVAIS *Influence of Zn-doping on the resistivity of $\text{La}_2\text{Ni}_{1-x}\text{Zn}_x\text{O}_{4+\delta}$ compound*, **104** (2003) 145-149
151. N. H. HONG, J. SAKAI, J. G. NOUDEM, F. GERVAIS, M. GERVAIS, *An enhancement of the ferromagnetic volume fraction in $\text{La}_{0.9}\text{Ba}_{0.1}\text{Mn}_{1-x}\text{Cr}_x\text{O}_3$ thin films* **107** (2004) 305–309.
152. V. BRIZÉ, G. GRUENER, J. WOLFMAN, K. FATYEYeva, M. TABELLOUT, M. GERVAIS, F. GERVAIS, *Grain size effects on the dielectric constant of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ ceramics*, **129** (2006) 135.

165 citations

Journal of Magnetism and Magnetic Materials

153. N. H. HONG, J. SAKAI, J. G. NOUDEM, F. GERVAIS, M. GERVAIS, *Ru doped $\text{La}_{0.7}(\text{Ba-Ca})_{0.3}\text{MnO}_3$ thin films: Unexpected Ferromagnetic Insulating Phase and Positive Magnetoresistance* **272** (2004) 1826.
154. N.H. Hong, J. Sakai, F. Gervais, *Magnetism due to oxygen vacancies and/or defects in undoped semiconducting and insulating oxide thin films* **316**, 214 (2007).
155. M. El Amrani, M. Zaghrioui, V. Ta Phuoc, N.E. Massa, F. Gervais, *Local symmetry breaking and spin-phonon coupling in SmCrO_3 orthochromite*, **361**, 1-6 (2014)

Journal of the European Ceramic Society

156. A. HASSINI, G. GRUENER, R. SOPRACASE, M. GERVAIS, E. VERON, F. GERVAIS, *Optical conductivity in $\text{La}_{0.8}\text{Sr}_{0.2}\text{Mn}_{1-x}\text{Ru}_x\text{O}_3$* , **25** (2005) 2093.
157. C. AUTRET, M. GERVAIS, S. GERVAIS, N. RAIMBOUX, P. SIMON, *Electron spin resonance study of the magnetic states in the $\text{Pr}_{0.2}\text{Sr}_{0.8}\text{Mn}_{1-x}\text{Ru}_x\text{O}_3$ ($x = 0, 0.01$)*, **25** (2005) 3033.
158. A. Vincent, S. Beaudet-Savignat, F. Gervais, *Elaboration and ionic conduction of apatite-type lanthanum silicates doped with Ba, $\text{La}_{10-x}\text{Ba}_x(\text{SiO}_4)_6\text{O}_{3-x/2}$ with $x = 0.25-2$* , **27**, 1187 (2007).
159. Sonia De Almeida-Didry, Cécile Autret, Anthony Lucas, Christophe Honstettre, François Pacreau, François Gervais, *Leading role of grain boundaries in colossal permittivity of doped and undoped CCTO* **34**, 3649-3654 (2014).
160. S. De Almeida-Didry, M.M. Nomel, C. Autret, C. Honstettre, A. Lucas, F. Pacreau, F. Gervais. *Control of grain boundary in alumina doped CCTO showing colossal permittivity by core-shell approach*, **38**, 3182-3187 (2018)

Materials Chemistry and Physics

161. Maria R. Catalano, Graziella Malandrino, Corrado Bongiorno, Roberta G. Toro, Patrick Fiorenza, Romain Bodeux, Jerome Wolfman, Monique Gervais, Cécile Autret Lambert, Francois Gervais, Raffaella Lo Nigro, *$\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ thin films on conductive oxide electrode : a comparative study between chemical and physical vapor deposition routes* **133**, 1108-1115 (2012).

RCS Advances

162. D. M. Neacsu, K. Abbassi, H. Guesmi, P. L. Coddet, J. Vulliet, M. El Amrani, S. De Almeida-Didry, S. Roger, V. Ta Phuoc, R. Sopraccase, F. Gervais, C. Autret-Lambert *Nb and Cu co-doped $(\text{La,Sr})(\text{Co,Fe})\text{O}_3$: a stable electrode for solid oxide cells* **11**,10479–10488 (2021).

AMERICAN CHEMICAL SOCIETY APPLIED ENGINEERING MATERIALS

163. **Cécile Autret-Lambert, Samir Merad, Sonia De Almeida-Didry, Sylvain Roger, François Gervais**, *Effect of MnO on the dielectric properties of Nb-SrTiO₃ ceramics for capacitor applications* **1**, 68-79 (2023) doi : 10.1021/acsaelm.2c00013

JOURNAL OF ALLOYS AND COMPOUNDS

164. **M. LICHERON et F. GERVAIS**, *Enhancement of T_c in 2D (Ba,K)₂(Pb,Bi)O₄ with respect to 3D Ba(Pb,Bi)O₃* **195**, 77-80 (1993).
165. **S. TABOADA, A. de ANDRES, J.L. MARTINEZ, R.P.S.M. LOBO, P. ODIER, F. GERVAIS, A. SALINAS, R. SAEZ-PUCHE**, *Effect of rare earth substitution on the optical phonons of LaRBaCuO₅ (R = Nd and Eu) oxides* **225**, 216-9 (1995).

JOURNAL OF NON-CRYSTALLINE SOLIDS

166. **F. GERVAIS, A. BLIN, D. MASSIOT, J.P. COUTURES, M.H. CHOPINET et F. NAUDIN**, *Infrared reflectivity spectroscopy of silicate glasses* **89**, 384-401 (1987).
[154 citations](#)
167. **F. GERVAIS, C. LAGRANGE, A. BLIN, M. ALIARI, G. HAURET, J.P. COUTURES, M. LEROUX**, *Comparison of dielectric response deduced from infrared reflectivity and Raman spectra of silicate glasses* **119**, 79-88 (1990).
168. **F. PAROT, B. COTE, C. BESSADA, D. MASSIOT, F. GERVAIS** : *An attempt to reconcile interpretations of atomic vibrations and ²⁹Si NMR data in glasses*, **169**, 1-14 (1994).
169. **HAURET G., VAILLS Y., LUSPIN Y., GERVAIS F., COTE B.** *Similarities in the behaviour of magnesium and calcium silicate glasses*, **170**, 175-81 (1994).
170. **F. GERVAIS, A. BLIN, C. GARNIER, P. VERDIER, Y. LAURENT**, *Infrared reflectivity spectroscopy of nitrogen-substituted alkaline earth aluminosilicate glasses*, **176**, 69-75 (1994).
171. **G. HAURET, Y. VAILLS, T. PAROT-RAJAONA, F. GERVAIS, D. MAS, Y. LUSPIN**, *Dynamic behavior of (1-x)SiO₂-0.5xM₂O glasses (M = Na,Li) investigated by infrared and Brillouin spectroscopies*, **191**, 85-93 (1995).

APPLIED OPTICS

172. **F. GERVAIS et J.L. SERVOIN**, *Analysis of infrared reflectivity in the presence of asymmetrical phonon line* **16**, 2952-6 (1977).

JOURNAL OF THE OPTICAL SOCIETY OF AMERICA

173. **F. GERVAIS, J.L. SERVOIN**, *Analysis of infrared reflectivity in the presence of asymmetrical phonon line* **67** (1977) 255.
174. **F. Gervais, J.F. Baumard**, *Infrared properties of stoichiometric and non-stoichiometric rutile TiO₂*, **67** (1977) 255.

INORGANIC MATERIALS

175. **L. GOUX, M. GERVAIS, F. GERVAIS, C. CHAMPEAUX, A. CATHERINOT**, *Pulsed laser deposition of ferroelectric BST thin films on perovskite substrates : an infrared characterization* **3**, 839-42 (2001).

JOURNAL OF SOLID STATE CHEMISTRY

176. **C. Autret-Lambert, B. Pignon, M. Gervais, I. Monot-Laffez, A. Ruyter, L. Ammor, F. Gervais, J.M. Bassat, R. Decourt**, *Microstructural and transport properties in substituted $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ -modulated compounds*, **179** (2006) 1698-1706.
177. **V. Brizé, C. Autret-Lambert, J. Wolfman, M. Gervais, F. Gervais**, *Synthesis and microstructural TEM investigation of $\text{CaCu}_3\text{Ru}_4\text{O}_{12}$ ceramic and thin film* **184** (2011) 2719.
178. **T. Barbier, C. Autret-Lambert, P. Andreazza, A. Ruyter, C. Honstetter, S. Lambert, F. Gervais, M. Lethiecq**, *Cu-doping effect on dielectric properties of organic gel synthesized $\text{Ba}_4\text{YMn}_{3-x}\text{Cu}_x\text{O}_{11.5-d}$* , **206** (2013) 217-225
179. **Merad, S., Autret-Lambert, C., Zaghrioui, M., Neasca, D., Motret, O., Gervais, F.** *Constructing multiple heterogeneous shell on the $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ core for better dielectric performances* doi: 10.1016/j.jssc.2023.124339 (2023)

JOURNAL OF MATERIALS CHEMISTRY

180. **L. GOUX, M. GERVAIS, F. GERVAIS, C. CHAMPEAUX, A. CATHERINOT**, *Pulsed laser deposition of ferroelectric BST thin films on perovskite substrates : an infrared characterization* **3**, 839-42 (2001).
181. **S. BEAUDET-SAVIGNAT, A. VINCENT, S. LAMBERT, F. GERVAIS**, *Oxide ion conduction in Ba, Ca and Sr doped apatite-type lanthanum silicates* **17** (2007) 2078-2087.

JOURNAL OF LESS-COMMON METALS

182. **M. LICHERON et F. GERVAIS**, *Relation structure-metallicity in Bi-substituted multilayers ranging from BaPbO_3 to Ba_2PbO_4* **165**, 940-7 (1990).

MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING

183. **L. Goux, M. Gervais, F. Gervais, A. Catherinot, C. Champeaux and F. Sabary** *Characterization of pulsed laser deposited $\text{Ba}_{0.6}\text{Sr}_{0.4}\text{TiO}_3$ on Pt-coated silicon substrates*, **5** (2002) 189-194.

CHEMISTRY OF MATERIALS

184. **C. Autret-Lambert, Z. Jirak, M. Gervais, N. Poirot, F. Gervais, N. Raimboux, P. Simon, F. Bourée, G. André**, *Electron spin resonance and neutron diffraction studies of $\text{Nd}_{0.5-0x}\text{Pr}_x\text{Sr}_{0.5}\text{MnO}_3$ ($x=0.125, 0.25$)*, **19** (2007) 5222-9.

185. **Nathalie Poirot, François Gervais**, *Analysis of Temperature Dependence of Electrical Conductivity in $\text{La}_2\text{NiO}_{4.14}$ Single Crystal*, **10** (2005) 1007.

SYNTHETIC METALS

186. **C.A. Amarnath, F. Ghamouss, B. Schmaltz, C. Autret-Lambert, S. Roger, F. Gervais, F. Tran-Van**, *Polypyrrole/lanthanum strontium manganite oxide nanocomposite: Elaboration and characterization*, **167** (2013) 18-24.

FERROELECTRICS

187. **F. GERVAIS**, *Anharmonicity near structural phase transitions* **13**, 555-7 (1976).
188. **F. GERVAIS, Y. LUSPIN, J.L. SERVOIN et A.M. QUITTET**, *Scanning infrared interferometry up to high temperature : a tool to obtain information on ferroelectric mechanisms and anharmonic couplings* **24**, 285-8 (1980).
189. **J.L. SERVOIN et F. GERVAIS**, *Displacive-type mechanism in LiNbO_3 and LiTaO_3* **25**, 609-12 (1980).
190. **Y. LUSPIN, J.L. SERVOIN et F. GERVAIS**, *Stabilization of the soft ferroelectric mode in the paraelectric phase of BaTiO_3* **25**, 527-30 (1980).
191. **MASSOT, M., M.K. TENG, J.F. VITTORI, M. BALKANSKI, S. ZIOLKIEWICZ, F. GERVAIS, J.L. SERVOIN**, *Temperature dependence of the SbSI soft mode in the paraelectric phase*, **45** (1981) 237-242.
192. **J.L. SERVOIN, Y. LUSPIN et F. GERVAIS**, *Soft mode spectroscopy in ABO_3 ferroelectrics* **37**, 523-6 (1981).
193. **D. RYTZ, J.L. SERVOIN et F. GERVAIS**, *Deviation from Curie-Weiss law in $\text{KTa}_{1-x}\text{Nb}_x\text{O}_3$ at high temperature* **38**, 817-20 (1981).
194. **M.D. FONTANA, G. METRAT, J.L. SERVOIN et F. GERVAIS**, *Soft ferroelectric mode in KNbO_3* **38**, 797-800 (1981).
195. **N.E. MASSA, P. ECHEGUT et F. GERVAIS**, *Raman and far infrared spectra of K_2SeO_4 and their relation to the movement of selenate radicals at orthorhombic sites* **53**, 281-4 (1984).
196. **J.L. SERVOIN, D. RYTZ et F. GERVAIS**, *Infrared reflectivity of $\text{K}_{1-x}\text{Li}_x\text{TaO}_3$ and $\text{K}_{1-x}\text{Na}_x\text{TaO}_3$* **55**, 67-70 (1984).
197. **F. GERVAIS**, *Displacive to order-disorder crossover in ferroelectrics* **53**, 91-8 (1984).
198. **F. GERVAIS et P. SIMON**, (Article invité dans le numéro spécial commémorant le 50ième anniversaire de la découverte de KDP) *Infrared spectroscopy of KH_2PO_4 -type ferroelectrics* **72**, 77-93 (1987).
199. **M.A. PIMENTA, P. ECHEGUT et F. GERVAIS**, *High temperature phase transition and ionic mobility in LiKSO_4 and LiNaSO_4* **79**, 303-6 (1988).
200. **P. SIMON et F. GERVAIS**, *Lattice modes and phase transitions in KH_2PO_4 -type crystals revisited* **80**, 209-12 (1988).
201. **W. KACZMAREK et F. GERVAIS**, *Temperature dependence of polar phonons below and above the phase transition in gadolinium molybdate* **80**, 197-200 (1988).
202. **F. GERVAIS, P. ECHEGUT, P. SIMON, J.M. BASSAT, M. GERVAIS, K. DEMBINSKI et P. ODIER**, *Infrared reflection in polarized light and the superconductivity mechanisms approach in oxides of the La_2CuO_4 type* **105**, 75-9 (1990).

203. **P. ECHEGUT, M.A. PIMENTA, G. HAURET et F. GERVAIS**, *Phonon response and ionic diffusion in the $ABSO_4$ -system ($A = Li, B = Na, NH_4$)* **109**, 45-50 (1990).
204. **F. GERVAIS**, (Article invité dans le numéro spécial sur la relation entre ferroélectricité et supraconductivité) *Oxygen polarisability in ferroelectrics, a clue to understand superconductivity in oxides ?* **130**, 117-28 (1992).
205. **P. SIMON et F. GERVAIS**, *Progressive freezing in RADP structural glasses probed by infrared reflectivity spectroscopy* **125**, 461-6 (1992).
206. **M. LICHERON et F. GERVAIS**, *Phase transitions in the system Ba-K-Pb-Bi-O* **128** 179-83 (1992).
207. **F. GERVAIS, R.P.S.M. LOBO, M. LICHERON, F.J. GOTOR**, *Temperature dependence of reflectivity spectra of oxide conductors and superconductors*, **177**, 107-22 (1996).
208. **M. LICHERON, E. HUSSON, F. GERVAIS**, *Phase transition in $Ba(Sn,Sb)O_3$ system* **185**, 197-200 (1996).
209. **V. FONSECA, P. SIMON, F. GERVAIS**, *Temperature dependence of chemical bonding in ferroelectrics : the example of $LiNbO_3$* **239**, 33-8 (2000).
210. **J. A. MOREIRA, M.L. SANTOS, M.R. CHAVES, A. ALMEIDA, A. KLÖPPERPIEPER, F. GERVAIS**, *Lattice dynamics and phase transitions in betaine arsenate*, **239**, 93-100 (2000).

FERROELECTRICS LETTERS

211. **F. GERVAIS, J.L. SERVOIN et B. JANOT**, *Study of the soft mode behavior of doped and mixte $BaTiO_3$ single crystals by infrared reflectometry* **2**, 161-70 (1984).

PHYSICA STATUS SOLIDI

212. **F. GERVAIS et F. CABANNES**, *Résonance paramagnétique électronique de Fe^{3+} dans ZrO_2 and HfO_2 monoclinique* **33**, 453-61 (1969).
213. **F. GERVAIS, B. PIRIOU et F. CABANNES**, *Anharmonicity of infrared vibration modes in beryl* **51**, 701-12 (1972).
214. **F. GERVAIS, B. PIRIOU et F. CABANNES**, *Anharmonicity of infrared vibration modes in the nesosilicate Be_2SiO_4* **55**, 143-54 (1973).
215. **D. BILLARD, F. GERVAIS et B. PIRIOU**, *Analysis of multiphonon absorption in corundum (b)* **75**, 117-26 (1976).
216. **F. GERVAIS**, *Effective charges in displacive ferroelectrics (b)* **100**, 337-42 (1980).
217. **W. KACZMAREK et F. GERVAIS**, *Infrared dispersion of β -gadolinium molybdate at room temperature (a)* **99**, 279 (1987).

JAPANESE JOURNAL OF APPLIED PHYSICS

218. **P. SIMON et F. GERVAIS**, *KH_2PO_4 -type crystals : a displacive phase transition induced by proton disorder behavior* **24-2**, 911-3 (1985).
219. **P. ECHEGUT, G. HAURET, F. GERVAIS et N.E. MASSA**, *Lattice vibrations and incommensurate phase transitions in K_2SeO_4 , Rb_2ZnCl_4 and K_2ZnCl_4* **24-2**, 778-80 (1985).

220. **F. GERVAIS**, *Origin of ferroelectricity in highly-polar oxides : small changes of chemical bonding enhanced by local electric field* **24-2**, 198-200 (1985).
221. **F. GERVAIS, P. SIMON, P. ECHEGUT et B. CALES**, *Recent studies by infrared reflectivity spectrometry* **24-2**, 117-20 (1985).

THIN SOLID FILMS

222. **L. GOUX, M. GERVAIS, F. GERVAIS, A. CATHERINOT, C. CHAMPEAUX, E. BRUNETON** *Role of Ti out-diffusion from a Pt/Ti bi-layer on the crystalline growth of (Ba,Sr)TiO₃: A transmission electron microscopy investigation* **515** (2006) 1260-1265.
223. **ROMAIN BODEUX, MONIQUE GERVAIS, JÉRÔME WOLFMAN, CÉCILE AUTRET-LAMBERT, GUOZHEN LIU, FRANÇOIS GERVAIS**, *CaCu₃Ti₄O₁₂ thin film capacitors: evidence of the presence of a Schottky type barrier at the bottom electrode* **520** (2012) 2632-8.
224. **Nazir Jaber, Jérôme Wolfman, Christophe Daumont, Béatrice Negulescu, Antoine Ruyter, Thierry Sauvage, Blandine Courtois, Houssny Bouyanfif, Jean-Louis Longuet, Cécile Autret-Lambert, François Gervais**, *Laser fluence and spot size effect on compositional and structural properties of BiFeO₃ thin films grown by Pulsed Laser Deposition.* **634** (2017) 107-111.

ANNALES DE CHIMIE

225. **J. RAVEZ, G. CALVARIN, R. COHEN-ADAD, C. COULON, M. COUZI, F. GERVAIS, C. GODART, D. GRATIAS, P. GRESSIER, J.C. MATHIEU, J.C. TOLEDANO et P. TOLEDANO**, *Les changements de phase* **14**, 415-20 (1989).

PHASE TRANSITIONS

226. **M.A. PIMENTA, P. ECHEGUT, G. HAURET et F. GERVAIS**, *Lattice dynamics of LiNaSO₄ above room temperature studied by infrared spectroscopy* **9**, 185-203 (1987).
227. **F. GERVAIS, P. ECHEGUT, J.M. BASSAT et P. ODIER**, *Electron-phonon coupling, superconducting and structural phase transitions in oxides of the La₂CuO₄ family* **30**, 153-6 (1991).
228. **P. SIMON, F. GERVAIS et E. COURTENS**, *Infrared reflectivity study of phase transitions in KH₂PO₄-type compounds* **33**, 75-6 (1991).

MATERIALS RESEARCH BULLETIN

229. **F. GERVAIS, B. CALES et P. ODIER**, *Characterization of strontium titanate ceramics by infrared reflectivity spectroscopy and electron paramagnetic resonance* **22**, 1629-33 (1987).
230. **V. ZELEZNY, P. SIMON, F. GERVAIS et T. KALA**, *Soft mode behavior in PZT compounds by infrared reflectivity spectroscopy* **22**, 1695-1702 (1987).
231. **Tristan Barbier, Cécile Autret-Lambert, Christophe Honstrette, François Gervais, Marc Lethiecq**, *Dielectric Properties of Hexagonal Perovskite Ceramics Prepared by Different Routes* **47**, 4227-4232 (2012).

INFRARED PHYSICS

232. **F. GERVAIS et J.L. SERVOIN**, *Infrared reflectivity spectroscopy of soft modes in the vicinity of the ferroelectric-paraelectric phase transitions at high temperature* **18**, 883-6 (1978).

INT. JOURNAL ON INFRARED AND MILLIMETER WAVES

233. **D. BILLARD, F. GERVAIS et B. PIRIOU**, *Far-infrared absorption in Al_2O_3 and MgO* **1**, 641-7 (1980).

HIGH TEMPERATURES - HIGH PRESSURE

234. **J.L. SERVOIN et F. GERVAIS**, *Temperature dependence of infrared reflectivity in $LiNbO_3$* **8**, 557-63 (1976).
235. **D. BILLARD, J.L. SERVOIN, F. GERVAIS et B. PIRIOU**, *High-temperature conventional and Fourier-transform infrared spectroscopy of vibrational states in oxide crystals* **11**, 415-22 (1979).

JOURNAL OF HIGH TEMPERATURE CHEMISTRY & PROCESSES

236. **S. BLEUX, F. SERONDE, P. ECHEGUT, F. GERVAIS**, *Study of the solid-liquid transition of oxides by infrared emission spectroscopy*, **3**, 213-9 (1994).

ACTA PHYSICA POLONICA

237. **M. RAMES, V. ZELESNY, V.T. PHUOC, F. GERVAIS, T. WOLF, M. JIRSA**, *Electron behavior of $(Nd-Eu-Gd)Ba_2Cu_3O_y$ studied by infrared measurements*, **A 118** (2010) 938.

REVUE DES HAUTES TEMPERATURES ET DES REFRACTAIRES

238. **F. GERVAIS, D. BILLARD et B. PIRIOU**, *High-temperature phonon self-energy : an application to infrared spectra of corundum Al_2O_3* **12**, 58-62 (1975).
239. **L. PINTSCHOVIVUS, J.M. BASSAT, P. ODIER, F. GERVAIS, B. HENNION et W. REICHARDT**, *Lattice dynamics of high- T_c superconductors* **25**, 53 (1989).

BULL SOC MINERALOGIE & CRISTALLOGRAPHIE

240. **F. GERVAIS, B. PIRIOU et J.L. SERVOIN**, *Etude par réflexion infrarouge des modes internes et externes de quelques silicates* **96**, 81-90 (1973).
241. **G. DOLINO, J.P. BACHHEIMER, F. GERVAIS et A.F. WRIGHT**, *La transition α - β du quartz : le point sur quelques problèmes actuels : ordre-désordre ou displacive, comportement thermodynamique* **106**, 267-85 (1983).

SCIENCE OF CLIMATE CHANGE

242. **F. GERVAIS**, *Climate sensitivity and carbon footprint*, **1**, 70-97 doi.org/10.53234/scc202111/29

CLIMATE

243. **Willie Soon, Ronan Connolly, Michael Connolly, Syun-Ichi Akasofu, Sallie Baliunas, Johan Berglund, Antonio Bianchini, William M. Briggs, C. J. Butler, Rodolfo Gustavo Cionco, Marcel Crok, Ana G. Elias, Valery M. Fedorov, François Gervais, Hermann Harde, Gregory W. Henry, Douglas V. Hoyt, Ole Humlum, David R. Legates, Anthony R. Lupo, Shigenori Maruyama, Patrick Moore, Maxim Ogurtsov, Coilín ÓhAiseadha, Marcos J. Oliveira, Seok-Soon Park, Shican Qiu, Gerré Quinn, Nicola Scafetta, Jan-Erik Solheim, Jim Steele, László Szarka, Hiroshi L. Tanaka, Mitchell K. Taylor, Fritz Vahrenholt, Víctor M. Velasco Herrera, Weijia Zhang**, *The Detection and Attribution of Northern Hemisphere Land Surface Warming (1850–2018) in Terms of Human and Natural Factors: Challenges of Inadequate Data*, **11**, 179 (2023) doi : 10.3390/cli11090179

COMPTE-RENDUS

244. **F. GERVAIS et B. PIRIOU**, *Etude des spectres de réflexion infrarouge du béryl dans la région 280-1400 cm⁻¹* **274**, 252-5 (1972).

LE VIDE

245. **F. GERVAIS**, *Caractérisation de couches minces supraconductrices par réflexion infrarouge* **41**, 95-8 (1988).

Patent

246. **A. Lucas, E. Kotula, C. Autret, S. Didry, F. Gervais**, *Ceramic dielectric materials with CCTO*, n° 1454170 (2014), published in 2015.

Books

247. *Programming of graphic cards CGA, EGA, VGA (in french)*, Ed. **SYBEX**, 308 pages (1989). **Translation in Spanish edited by Ra-ma**

248. *The new superconductors (in french)*, Ed. **LAVOISIER**, 209 pages (1990).

249. *TURBO PASCAL 6 (in french)*, Ed. **SYBEX**, 267 pages (1991).

250. *The hell of game on PC (in french)*, Ed. **SYBEX**, 271 pages (1992).

251. *The innocence of carbon (in french)*, Ed. **Albin Michel** Science library, 304 pages (2013).

252. *Tiny CO₂ warming challenged by Earth greening*, Ed. **Scholar's Press** (Sarrebruck), 124 pages (2016).

253. *The climatic emergency is a deception (in french)*, Ed. **Le Toucan l'Artilleur**, 304 pages (2018)

254. *Thank you CO₂ – Climatic impact and consequences: a few landmarks (in french)*, Ed. **L'Artilleur**, 120 pages (2020)

255. *Promising trends in materials for ceramic capacitors* (with Sonia De Almeida and Cécile Autret) **Lambert Acad. Pub.** - 100 pages (2020).
256. *Earth greening challenged by carbon footprint* **Generis Publishing** - 246 pages (2022)
257. *Climate dead ends (in french)*, **Ed. L'Artilleur**, 304 pages (2022)
258. *Climatic unreason (in French)*, **Ed. L'Artilleur**, 280 pages (2023)

Chapters of books

259. **F. GERVAIS**, *High-Temperature Infrared Reflectivity Spectroscopy by Scanning Interferometry* Chapter 7 of INFRARED AND MILLIMETER WAVES, Vol. 8, Electromagnetic Waves in Matter, Ed. K.J. Button, **ACADEMIC PRESS**, 279-339 (1983). **285 citations**
260. **F. GERVAIS et P. ECHEGUT**, *Infrared Studies of Incommensurate Systems*, Chapter 8 of INCOMMENSURATE PHASES IN DIELECTRICS, Volume 14.1 of the series MODERN PROBLEMS IN CONDENSED MATTER SCIENCE, Ed. V.M. Agranovich and A.A. Maradudin, **NORTH HOLLAND**, 337-64 (1986).
261. **F. GERVAIS**, *Aluminum Oxide Al_2O_3* HANDBOOK OF OPTICAL CONSTANTS, Volume II, Ed. E.D. Palik, **ACADEMIC PRESS**, 761-75 (1991).
262. **F. GERVAIS**, *Strontium Titanate $SrTiO_3$* HANDBOOK OF OPTICAL CONSTANTS, Volume II, Ed. E.D. Palik, **ACADEMIC PRESS**, 1035-47 (1991).
263. **F. GERVAIS et V. FONSECA**, *Lithium tantalate $LiTaO_3$* HANDBOOK OF OPTICAL CONSTANTS, Volume III, Ed. E.D. Palik, **ACADEMIC PRESS**, 777-805 (1998)
264. **C. Autret-Lambert, S. Merad, S. De Almeida-Didry, O. Motret, F. Gervais**. *On Recent Progress on Core Shell Nanostructures of Colossal Permittivity Materials for Capacitors: Synthesis and Dielectric Properties* **Ceramic Materials Present & Future** DOI: 10.5772/intechopen.1002472 (2023).

Proceedings of Conferences

265. **F. GERVAIS, J.L. SERVOIN et D. BILLARD**, *Optical phonon modes and anharmonic couplings in $LiNbO_3$ and $LiTaO_3$* Lattice Dynamics, Ed M. Balkanski, Flammarion 136-8 (1977).
266. **F. GERVAIS**, *Charges effectives dans les composés binaires*, Proceedings of Galerne Meeting 1979.
267. **J.L. SERVOIN, Y. LUSPIN et F. GERVAIS**, *Temperature dependence of polar optical modes in the cubic phase of $BaTiO_3$ and $SrTiO_3$* Recent Developments in Condensed Matter Physics, Ed J.T. Devreese, Plenum 157-65 (1981).
268. **J.L. SERVOIN et F. GERVAIS**, *Soft mode spectroscopy in $LiTaO_3$ and $LiNbO_3$ and the mechanism of the ferroelectric phase transition* Broken Symmetry in Condensed Matter Physics, Ed N. Boccara 285-9 (1981).
269. **Y. LUSPIN, J.L. SERVOIN, F. GERVAIS et A.M. QUITTET**, *New Aspects of ferroelectric phase transitions in oxidic perovskites*, Broken Symmetry in Condensed Matter Physics, Ed N. Boccara 277-84 (1981).
270. **F. GERVAIS**, *Localisation and délocalisation des électrons dans les solides - Caractérisation par spectrométrie infrarouge*, Proceedings of Galerne Meeting 1982.
271. **BARATOFF, G. BINNIG, J.G. BEDNORZ, F. GERVAIS et J.L. SERVOIN**, *Electron-phonon interactions, screening and superconductivity in n-type $SrTiO_3$* , Superconductivity an d- and f-Band Metals, 419 (1982).

272. **P. ECHEGUT, M.A. PIMENTA et F. GERVAIS**, *Hard modes in infrared response of K_2SeO_4 -type incommensurate systems*, Phonons, Ed. J. Kollar, World Scientific, 275-7 (1985).
273. **P. SIMON, F. GERVAIS et P. ECHEGUT**, *Soft mode behavior induced by proton disorder in KDP-type compounds*, Phonons, Ed. J. Kollar, World Scientific, 281-3 (1985).
274. **F. GERVAIS, A. BLIN, M.H. CHOPINET et F. NAUDIN**, *Infrared reflectivity spectroscopy in silicate glasses*, Proceedings of the Dehli Conference on Glass (1986).
275. **F. GERVAIS et B. CALES**, *Characterization of $SrTiO_3$ ceramics by the resonance of paramagnetic centers*, Proceedings of Congress Ampere on Magnetic Resonance, Ed. B. Maraviglia, 220-1 (1986).
276. **F. GERVAIS, P. SIMON, M.A. PIMENTA, P. ECHEGUT et G. HAURET**, *Temperature dependence of EPR linewidths near the phase transitions of incommensurate systems*, Proceedings of Congress Ampere on Magnetic Resonance, Ed. B. Maraviglia, 136-7 (1986).
277. **P. SIMON et F. GERVAIS**, *Mechanism of the paraelectric-ferroelectric phase transition in KH_2PO_4 -type compounds*, Dynamics of Molecular Crystals, Ed. J. Lascombe 225-30 (1987).
278. **F. GERVAIS, P. ECHEGUT, J.M. BASSAT, M. GERVAIS, K. DEMBINSKI et P. ODIER**, *Characterization of the bidimensionality of electronic properties in high- T_c superconductors by infrared reflectivity spectroscopy*, Phonons 355-7 (1990).
279. **P. SIMON et F. GERVAIS**, *Phonons and phase transitions in KDP-type crystals*, Phonons 1153-5 (1990).
280. **F. SERONDE, P. ECHEGUT, J.P. COUTURES et F. GERVAIS**, *Methods of measurement of spectral emissivity in absorbing and semi-transparent materials and coatings at high temperature*, ESA WPP 020 (1991).
281. **T. PAROT-RAJAONA, Y. VAILLS, D. MASSIOT et F. GERVAIS**, *Analysis of lithium aluminosilicate glasses by Raman scattering, infrared reflectivity and ^{29}Si MAS-NMR spectroscopy*, Proc Conf Madrid.
282. **M. LICHERON, F. GERVAIS**, *Bidimensional oxide superconductors without copper*, In « Superconducting Materials », Proc ICMAS 93, Ed J. Etourneau, J.B. Torrance, H. Yamauchi, p. 131-6 (1993).
283. **P. ECHEGUT, S. BLEUX, F. GERVAIS, G. NEUER, E. SCHREIBER, S. DAVIAUD, G. GOURMELON, F. LEVADOU**, *Emissivity measurements at high temperature towards an « universal » method*, Proc. Conf. Montpellier on thermal radiation (1993).
284. **T. PAROT-RAJAONA, J. COUTURES, C. BESSADA, B. COTÉ, Y. VAILLS, D; MASSIOT, J.P. COUTURES, F. GERVAIS**, *Vibrational and NMR study of aluminosilicate glasses*, « Fundamentals of Glass Science and Technology 1993 » p. 181-6.
285. **T. PAROT-RAJAONA, B. COTE, C. BESSADA, D. MASSIOT, F. GERVAIS**, *Cross checking of vibrational and NMR information in glasses*, Proc Glass Science & Technology, Athens (1993).
286. **P. ECHEGUT, F. GERVAIS**, *Propriétés des milieux homogènes et hétérogènes*, Proceedings of « Thermal radiation », Collonges-la-rouge (1996), 40 pages.
287. **R.P.S.M. LOBO, F.J. GOTOR, P. ODIER et F. GERVAIS**, *Decoupling the superconducting condensate from phonons in the far-infrared spectra of $YBa_2Cu_3O_{7-x}$* , Proc of SPIE's International Symposium on Spectroscopic Studies of Superconductors (San Jose) **2696**, 78-85 (1997).
288. **S. PESSAUD, M. LICHERON, F. GERVAIS, C. CHAMPEAUX, P. MARCHET, A. CATHERINOT**, *Multi-target laser ablation : a way for the elaboration of thin films of High- T_c superconducting oxides*, Proc. of ALT'97, SPIE 3404, 116-24 (1997).
289. **F. GERVAIS**, *Propriétés optiques des matériaux*, Proceedings of « Waves and Matter », Carcans-Maubuisson (1998), 36 pages.
290. **L.G. VIERA, J.L. RIBEIRO, A.ALMEIDA, M.R. CHAVES, A.KLOPPERPIEPER, J. ALBERS, F. GERVAIS**, *On the chemical pressure and freezing in 2% brominated BCCD*, Proc. APERIODIC'97, WORLD SCIENTIFIC, p. 605-9 (1998).

291. **F. GERVAIS**, *Les mesures optiques*, Proceedings of Galerne Meeting, Piriac (1999), p. 145-161.
292. **S. DA ROCHA, P. THIBAUDEAU, F. GERVAIS**, *Simulation du désordre cationique dans le spinelle $MgAl_2O_4$* , Proc. Matériaux 2002 (2002).
293. **P. THIBAUDEAU, F. GERVAIS, S. DA ROCHA**, *Détermination ab initio des modes propres de vibration dans $MgAl_2O_4$* , Proc. Matériaux 2002 (2002).
294. **LAMBERT, S., A. SURMIN, B. MINOT, A., F. GUILLET, D. DAMIANI, F. GERVAIS, E. VÉRON, P. SIMON**, *Thermal mechanism of laser induced damages in KDP crystals* LASER-INDUCED DAMAGE IN OPTICAL MATERIALS: 2007. Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE) Volume: 6720 (2008) 72007.
295. **Y.H. Jang, F. Gervais, Y. Lansac**, *A-Site Distribution in $La_{1-x}Sr_xMnO_3$: a Computational Study*, Mater. Res. Soc. Symp. Proc. 1074 (2008) 102-10.
296. **M., Rames, Zelezny, V., Phuoc, V. T., Gervais, F., Wolf, T., Jirsa, M.**, *Structural properties of $(Nd_{0.33}Eu_{0.2}Gd_{0.47})Ba_2Cu_3O_y$ studied by magnetic and infrared measurements*, 9th European Conference On Applied Superconductivity (Eucas 09) **234**, 012032 (2010).
297. **M. Rames, V. Zelezny, V.T. Phuoc, F. Gervais, T. Wolf, T. M. Jirsa**, *Electrodynamics of $(Nd, Eu, Gd)Ba_2Cu_3O_y$ single crystals*, Superconductivity Centennial Conference 2011 **36**, 532-537 (2012).
298. **Vincent, V. Grimal, F. Gervais, L. Ventura, N. Poirot**, *New route for BST synthesis by soft chemistry*, IEEE International Symposium on Applications of Ferroelectrics (2012).

Other publications

299. **F. GERVAIS, J.L. SERVAIN et D. BILLARD**, *Reflection and transmission spectroscopy of phonons up to high temperature* BRUKER REPORT 1/81 (1981).
300. **P. SIMON, F. GERVAIS et E. COURTENS**, *Paraelectric-ferroelectric phase transitions of KH_2PO_4 and related systems studied by infrared reflectivity* IBM Report – Solid State Physics **5**, 1590-1624 (1987).
301. **L. PINTSCHOVIVUS, W. REICHARDT, J.M. BASSAT, P. ODIER et F. GERVAIS**, *Unelastische neutronenstreuung an La_2NiO_4* KfK Nachrichten 1/88 33-5 (1988).
302. « *François Gervais: a continuity in superconductivity* » (in french), by Franck Daninos, LA RECHERCHE **401** (2006).
303. **F. Gervais** « *Is global warming due to carbon?* » (in french), *Proceedings of the Academy of Touraine* (2017).
304. **F. Gervais**, *The equation carbon, climate, energy* (in french), *Tangente* Hors série n°67, 38-40.
305. **F. Gervais**, *The climatic emergency is a deception*, (in french) **Nexus** n°121, 100–105 (2019).
306. **F. Gervais**, *CO₂, a chance for the Planet ?* (in french) **Causeur** n°66, 68–71 (2019).
307. **F. Gervais**, *Little praise of carbon dioxide*, (in french) **Le Spectacle du Monde** n°619, 16–19 (2019).
308. **F. Gervais**, *Climate mechanics is inherently chaotic* (in french) **Valeurs Actuelles** 9 June 2022, 79-83.
309. **F. Gervais**, *Last news about CO₂* (In french) **Valeurs Actuelles Hors-série Grands Débats** n°11, 20-25 (July 2023)

Invited lectures

310. **Scanning infrared interferometry up to high temperature: a tool to obtain information on ferroelectric mechanisms and anharmonic couplings**, 4th European Meeting on Ferroelectricity, Portoroz, 1979.
311. **Polar soft modes and phase transition mechanism in ABO_3 ferroelectrics**, 13th European Symposium on Dynamical Properties of Solids, Les Houches, 1981.
312. **Nouvelles perspectives en spectroscopie infrarouge : impact de la transformée de Fourier répétitive**, 1er Seminar IR-FT Bruker, Wissembourg, 1982.
313. **Displacive order-disorder crossover in ferroelectrics**, 5th European Meeting on Ferroelectricity, Malaga, 1983.
314. **Recent studies by infrared reflectivity spectroscopy**, 6th Int. Meeting on Ferroelectricity, Kobe 1985.
315. **Infrared studies of the incommensurate phase and transitions in K_2SeO_4 and related compounds**, Phonon Symposium, Überlingen, 1986.
316. **Etudes infrarouges des phases incommensurables**, Meeting on Ferroelectricity, Metz, 1986.
317. **Etude des changements de phase par spectrométrie FTIR**, Conference on Crystal Growth, Nantes, 1987.
318. **Lattice dynamics of the La_2CuO_4 high-temperature superconductor family**, Phonon Symposium, Ventron, 1987.
319. **Infrared spectroscopy of high-temperature oxide superconductors**, Int. Conference on Spectroscopy, Budejovice, 1988.
320. **Effective charges in crystals and phase transitions**, 5th European Union of Geosciences, Strasbourg, 1989.
321. **Lattice dynamics of high T_c single crystals superconductors**, Meeting on E.E.C. activities in High Temperature Superconductivity, Strasbourg, 1990.
322. **Connections between lattice dynamics and superconductivity**, UIMP The Challenge of magnetic and superconductor materials, La Coruna, 1991.
323. **Role of lattice dynamics in superconductivity of high T_c oxides**, Colloquium of Physics, Anvers, 1991.
324. **Spectroscopic studies of high- T_c oxide superconductors**, Meeting of Condensed Matter Physics, Caxambù, 1992.
325. **Infrared reflectivity spectroscopy of high T_c oxide superconductors**, Sixth International Conference on Solid Films and Surfaces, Paris, 1992.
326. **Temperature dependence of reflectivity spectra of oxide conductors and superconductors**, Second Int. Conf. on Low-energy Electrodynamics in Solids (LEES2), Trest, 1995.
327. **Almost isotropic superconducting gap in $YBa_2Cu_3O_{7-\delta}$?** Dynamical Properties of Solids (DYPROSO XXV), Haro, 1995
328. **Polarons dans les oxydes conducteurs et supraconducteurs**, Meeting of GDR « Superconductors », Fontevault, 1995.
329. **Propriétés des milieux homogènes et hétérogènes**, Summer school « Thermal radiation », Collonges-la-rouge, 1996.
330. **Infrared reflectivity spectroscopy of electron-phonon interactions**, Int. Conf. on electrons and phonons, Erice, 1997.

331. **Conductivité infrarouge de couches minces**, Meeting of GDR « Superconductors », Tours, 1997.
332. **Propriétés optiques des matériaux**, Summer school « Waves and Matter », Carcans-Maubuisson, 1998.
333. **Polarons, couplage électron-phonon, conductivité optique**, Meeting « Electronic structures of oxides » Caen, 1999.
334. **Les mesures optiques**, GALERNE 99, Piriac, 1999.
335. **Microélectronique de puissance**, French-Bresilian Forum on innovation, Porto Alegre, 2001.
336. **Optical conductivity of oxides**, New3SC-5 New Theories, Discoveries and Applications of Superconductors and related materials, Chongqing, 2004.
337. **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.
338. **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.
339. **Thin film deposition by physical methods**, NUOTO final report, Catania, 2009.
340. **Les oxydes de structure pérovskite et dérivées : quelques propriétés remarquables de ces matériaux**, Journées de la Société Chimique de France, La Rochelle, 2010.
341. **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.
342. **Tiny CO₂ warming challenged by Earth greening**, London Climate Change Conference 2016.
343. **CO₂-induzierte Erwärmung vs. gesteigertem Pflanzenwachstum**, 10th International Conference on climate and energy, Berlin, 2016.
344. **CO₂-induced warming vs. increased growth of plants**, 11th International Conference on climate and energy, Düsseldorf, 2017.
345. **Cooling of climate sensitivity**, Basic Science of a changing climate, University of Porto, 2018.

Lectures or seminars in foreign universities or institutes invited by:

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

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

358. Muséum of Orléans (1995)
359. SIRITT of Bourges 1995)
360. 4th Scientific Meeting of Région Centre (1997)
361. « Détours en sciences » (2002)
362. « Campus Grandmont » (2005)
363. Café des Sciences - World year of Physics (2005)
364. « Materials with remarkable properties », Forum of Ph. D. students, University of Tours, 2008
365. Sciences education Meeting: « New energy sources », Tours (2009)
366. Engineers and Scientists of Touraine & Centre.Sciences, Tours (2010)
367. « Energy, ressources and recycling » Wednesdays of Thélème, Tours (2011).
368. En cas de physique, Tours (2012).
369. Université inter-âges, Saumur (2013).

370. Collège inter-âges, La Baule (2013).
371. Institute of Management of Rennes, Rennes (2014).
372. Rencontrer-Interroger-Connaître & Centre.Sciences, Tours (2014).
373. Group HEC Alumni Geostrategies, Paris (2014)
374. Coordination Rurale (agricultural trade union), yearly Meeting, Agen (2014)
375. Coordination Rurale, regional meeting, Saintes (2015)
376. Solidarity & Progress, Paris (2015)
377. International Conference of Schiller Institute, Paris (2015)
378. Association Realities and International relations, IPSEC, Paris (2015)
379. Society of Geography, Tours (2015)
380. ACR, Paris (2015).
381. Townhall of Livry-Gargan (2015).
382. UTL (University of free time of François Rabelais University) Tours (2016).
383. UTL, Fondettes (2016).
384. Townhall of Livry-Gargan (2016).
385. Institute of Locarn (2016).
386. ACR, Paris (2016).
387. Academy of Touraine, Tours (2016).
388. French community of Thailand, videoconference in Bangkok (2016)
389. School of Management of Normandy, Le Havre (2017).
390. UTL, Saint-Cyr sur Loire (2017).
391. UTLV, Vendôme (2017)
392. French Society of Nuclear Energy PACA, Marseille (2018)
393. Society of Ingeeniers & Scientist of France, Centre Val de Loire, Polytech'Tours (2018)
394. MNLE, Montreuil (2018)
395. Solidarity and Progress, Clichy (2018)
396. ACR, Paris (2018)
397. UTL, University of Tours (2019)
398. France Sovereignty, Orléans (2019)
399. Perspectives 45, Olivet (2019)
400. Rotary Club, Paris (2020)
401. Deputies of french parliament, Paris (2020)
402. PRISME (club of CEO of the region of Lyon) videoconference (2020)
403. Interdisciplinary University of Paris, videoconference (2021)
404. Cercle Frédéric Bastiat, videoconférence (2021)
405. Demi-siècle (Half-century club), Tours (2021)
406. MCF, Lyon (2022)
407. La Tour Blanche (2022)
408. Frédéric Bastiat Circle, Week-end of liberty, Dax (2022)
409. Well-being in Loudunais, Loudun (2022)
410. Townhall of Carnoux en Provence (2023)
411. ACR of Brittany (2023)
412. Lyons Club of Valence (2023)
413. Association of High Valley of Aude, Luc sur Aude (2023)
414. University of free ways, Saint-Laurent-Nouan (2023)
415. Grand Orient de France (freemasons) (2024)