

François Gervais

**Professeur des Universités retraité du Département de Physique
Faculté des Sciences & Techniques, Université de Tours**

**Directeur du LEMA (Laboratoire d'électrodynamique des matériaux avancés)
de 1996 à 2012, UMR CNRS 6157 à partir de 2002
devenu GREMAN UMR 7347 après fusion avec 2 équipes**

Ancien vice-président de Centre.Sciences, CCSTI de la Région Centre

Associate Editor de Materials Science & Engineering B

Co-editor de Science of Climate Change

245 publications dans des revues internationales à comité de lecture

45 actes de conférences et autres publications

12 livres

6 chapitres de livres

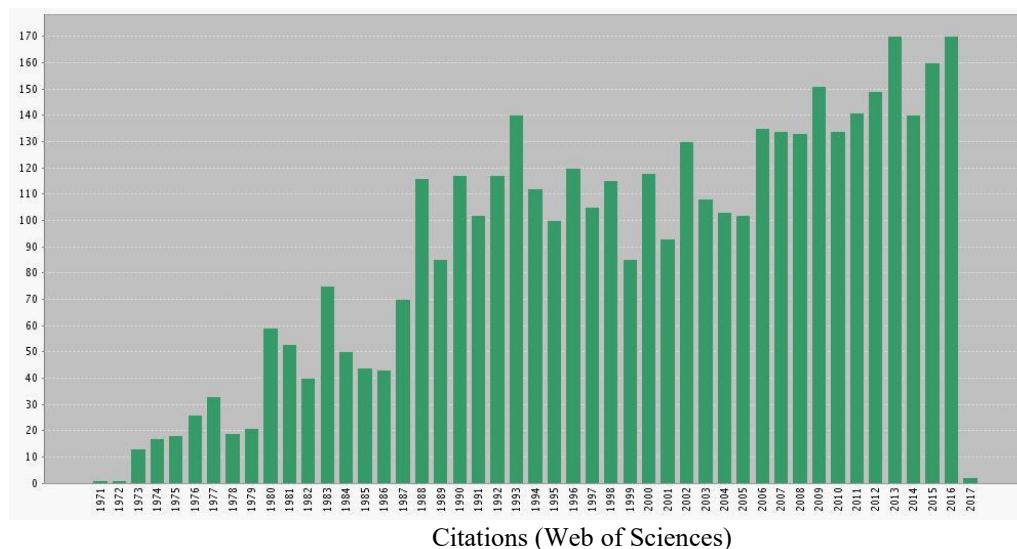
+ de 5400 citations dans les revues internationales à comité de lecture

H(irsch) index : 43 (Google scholar)

106 conférences invitées

81 communications orales dans des conférences internationales

foot



- **Officier dans l'Ordre des Palmes Académiques**
- **Médaille de bronze du CNRS (thermodynamique)**
- **Lauréat du Prix Yvan Peyches de l'Académie des Sciences** "pour sa contribution à la compréhension des propriétés infrarouges des oxydes modèles jusqu'aux verres industriels à haute température"

1996-2012	Directeur-fondateur du Laboratoire d'électrodynamique des matériaux avancés • UMR 6157 CNRS/CEA en 2002 • <i>FRE 2077 CNRS en 2000</i> • <i>LRC Moi CEA en 1998</i> • <i>EA 2099 en 1996</i>
2006-2011	Directeur du Conseil Scientifique du Centre d'études et de recherches technologiques en microélectronique (CERTeM)
2005-2011	Conseiller scientifique du Pôle de compétitivité S2E2 « <i>Sciences & Systèmes de l'énergie électrique</i> »
1999-2006	Chargé de mission du Centre National de Recherches Technologiques sur la Microélectronique de puissance
1996—1999	Directeur du GDR 1208 CNRS « Liaison chimique dans le solide »
1991—1997	Chargé de mission scientifique CNRS (DR8) • Directeur-fondateur de MICROSCOOP
1982—1996	Sous-directeur du Centre de Recherche sur la Physique des hautes températures, UPR 4212 CNRS, Orléans
1981-1982	Un an à l'Institut Max-Planck de Physique des solides de Stuttgart
1998-2015	Directeur de <i>COVALENCES</i> , publication de <i>Centre.Sciences</i>
1995-	Associate Editor of <i>MATERIALS SCIENCE & ENGINEERING B</i>
1989—1991	Coordinateur du contrat européen ESPRIT II 3327 « Lattice Dynamics of High-T _c Single Crystal Superconductors »
2006-2009	Workpackage leader du programme européen STREP NUOTO

2010-2013	Coordinateur de ANR/PNANO/3DCAP
2005-2009	Coordinateur de ANR/PNANO/NANOCOMBI
2011-	Expert reviewer des rapports AR5 et AR6 du GIEC
2024-	Co-editor de Science of Climate Change

Directeur ou co-directeur de 21 thèses de doctorat de 1985 à 2015

Referee de revues internationales

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 avec entreprises ou EPIC

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

Organisateur ou co-organisateur de conférences internationales

LEES 2014, Amboise, 2014

Colloque Louis Néel, Tours, 2013

Colloque du GDR NEEM, Tours, 2007

Journées SOLEIL Région Centre, Orléans, depuis 2000

Matériaux 2002, Tours

JMC7, Poitiers, 2000

DYPROSO 27, Tours, 1999

Organisateur de colloques de 2 jours du GDR 1208:

Bordeaux, 2000

Piriac, 1999

Paris, 1998

Tours, 1997

Paris, 1996

Paris, 1996

Colloque su GDR « Supraconducteurs » 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

Publications dans des revues internationales à comité de lecture

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 K₂SeO₄* **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).
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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. PINTSCHOVIOUS, 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).
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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).
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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 Prix Nobel de Physique

² Prix Nobel de Physique

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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).
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 Prix Nobel de Physique

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 puis 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).

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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).
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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. 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).

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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).
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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 $YBa_2Cu_3O_{7.8}$?*** Dynamical Properties of Solids (DYPROSO XXV), Haro, 1995
328. ***Polarons dans les oxydes conducteurs et supraconducteurs***, Meeting of GDR « Superconductors », Fontevrault, 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, Piriatic, 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, Porto, 2018.

Conférences ou séminaires invités par des universités étrangères :

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

Conférences « grand public » sur les matériaux, les nouveaux supraconducteurs, l'énergie, l'effet de serre, la transition énergétique et le développement durable

A l'invitation de :

358. Muséum d'Orléans (1995)
359. SIRITT de Bourges 1995)
360. 4ièmes Rencontres Scientifiques de la Région Centre (1997)
361. « Détours en sciences » (2002)
362. « Campus Grandmont » (2005)
363. Café des Sciences dans le cadre de l'année mondiale de la Physique (2005)
364. « Matériaux à Propriétés remarquables », Conférence inaugurale du Forum des doctorants de l'Université François Rabelais, Tours, 2008
365. « Efficacité énergétique, des solutions pour l'habitat de demain », Rencontres sciences éducation : « Nouvelles sources d'énergie », Tours (2009)
366. Sous l'égide des ingénieurs et scientifiques de Touraine et de Centre.Sciences, sur l'effet de serre du CO₂, Tours (2010)
367. « Energie, ressources et recyclage » dans le cadre des Mercredis de Thélème, Tours (2011)

368. En cas de physique, Tours (2012)
369. Université inter-âges, Saumur (2013)
370. Collège inter-âges, La Baule (2013)
371. Institut de Gestion de Rennes, Rennes (2014)
372. Rencontrer-Interroger-Connaître en partenariat avec Centre.Sciences, Fête de Science, Tours (2014)
373. Groupement HEC Alumni Géostratégies, Paris (2014)
374. Coordination Rurale lors de son Assemblée Générale annuelle, Agen (2014)
375. Coordination Rurale en Charente-Maritime, Saintes (2015)
376. Solidarité & Progrès, Paris (2015)
377. Conférence internationale de l'Institut Schiller, Paris (2015)
378. Association Réalités et Relations Internationales, IPSEC, Paris (2015)
379. Société de Géographie, Tours (2015)
380. ACR, Paris (2015)
381. Mairie de Livry-Gargan (2015)
382. Université du Temps Libre, Université François Rabelais, Tours (2016)
383. UTL, Université François Rabelais, Fondettes (2016)
384. Mairie de Livry-Gargan (2016)
385. Institut de Locarn (2016)
386. ACR, Paris (2016)
387. Académie des Sciences, Arts et Belles-Lettres de Touraine, Tours (2016)
388. Français de Thaïlande, visioconférence à Bangkok (2016)
389. Ecole de Management de Normandie, Le Havre (2017)
390. UTL, Université François Rabelais, Saint-Cyr sur Loire (2017)
391. UTLV, Vendôme (2017)
392. Société Française de l'énergie nucléaire PACA, Faculté de Pharmacie, Marseille (2018)
393. Société des Ingénieurs & Scientifiques de France, Centre Val de Loire, Polytech'Tours (2018)
394. Mouvement National de Lutte pour l'environnement, Montreuil (2018)
395. Solidarité et Progrès, Clichy (2018) – Conférence filmée, plus de 580000 vues
396. ACR, Paris (2018)
397. UTL, Université de Tours (2019)
398. France Souveraineté, Orléans (2019)
399. Perspectives 45, Olivet (2019)
400. Rotary Club de Paris (2020)
401. Contribuables associés devant un parterre de députés, Paris (2020)
402. PRISME (chefs d'entreprises lyonnais) visioconférence (2020)
403. Université Interdisciplinaire de Paris, visioconférence (2021)
404. Cercle Frédéric Bastiat, visioconférence (2021)
405. Demi-siècle, Tours (2021)
406. MCF, Lyon (2022)
407. La Tour Blanche (2022)
408. Cercle Frédéric Bastiat, Week-end des libertés, Dax (2022)
409. Bien vivre en Loudunais, Loudun (2022)
410. Carnoux en Provence (2023)
411. ACR de Bretagne (2023)
412. Lyons Club de Valence (2023)
413. Collectif de la Haute Vallée de l'Aude, Luc sur Aude (2023)
414. Université des voies libres, Saint-Laurent-Nouan (2023)
415. Grand Orient de France, Nice (2024)