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**Vice-président de Centre.Sciences, CCSTI de la Région Centre**

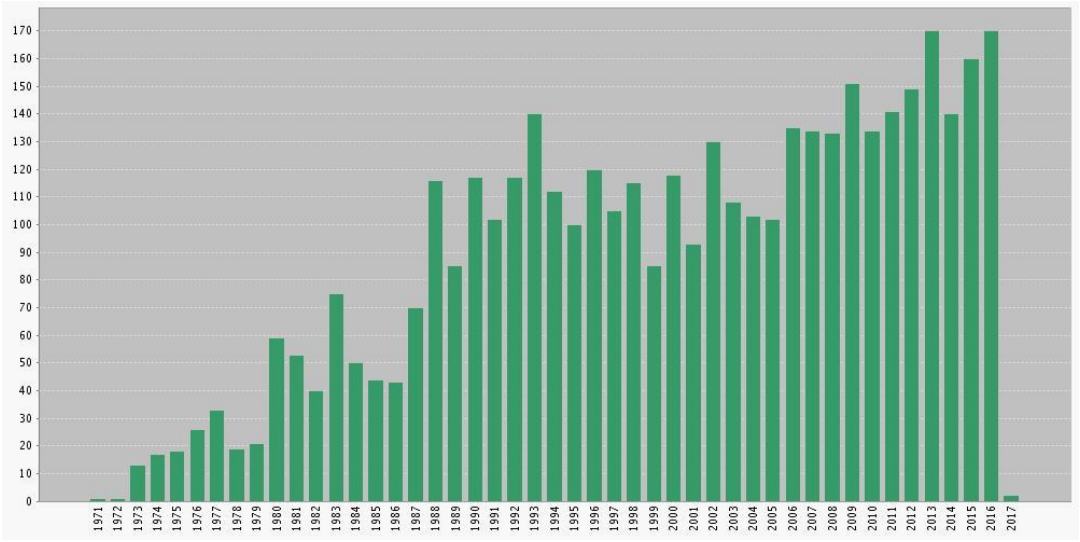
**Associate Editor de Materials Science & Engineering B**

***236 publications dans des revues internationales à comité de lecture***
***40*** *actes de conferences et autres publications*
***7 livres*** *sur la* SUPRACONDUCTIVITE (ED. LAVOISIER, Tec & Doc), LA PROGRAMMATION (ED. SYBEX)
L'EFFET DE SERRE ET LE DEVELOPPEMENT DURABLE (ED. ALBIN MICHEL, SCHOLAR'S PRESS, L'ARTILLEUR)
***5*** *chapitres de livres (*ED. ACADEMIC PRESS, NORTH HOLLAND)

**+ de 4485 citations** dans les revues à comité de lecture (Web of Science)

**H(irsch) index : 40** (Google scholar), 35 (Web of Sciences)

**86** conférences invitées
**81** communications orales dans des conférences in internationales



Citations (Web of Sciences)

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- **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***
- *FRE 2077 CNRS in 2000*
- *LRC M01 CEA in 1998*
- *EA 2099 in 1996*

**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
*« Sciences & Systèmes de l'énergie électrique »*

**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 *COVALENCES*, publication de *Centre.Sciences*

1995- Associate Editor of *MATERIALS SCIENCE & ENGINEERING B*

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**

2011-2012 Expert reviewer du rapport AR5 du GIEC

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

## Referee de revues internationales

American Mineralogist
Annales de Chimie
Canadian Mineralogist
Colloids and Surfaces
Condensed Matter
Crystals
Energies
European Physics Journal B
Europhysics Letters
Ferroelectrics
High Temperature-high pressure
Journal of Alloys and Compounds
Journal de Chimie Physique
Journal de Physique
Journal of applied Physics
Journal of Physical Chemistry
Journal of Physics C (GB)
Journal of Physics and Chemistry of Solids
Materials Science & Engineering
Physica status solidi
Physical Review B
Physical Review Letters
Polymers
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
SEP
SRTmicrocéramique
STMicroelectronics

## 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. **93 citations (Google scholar)**

***EARTH-SCIENCE REVIEWS***
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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 $TiO_2$ (rutile)* **10**, 1642-54 (1974).
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5. **J.F. BAUMARD et F. GERVAIS**, *Plasmon and polar optical phonon in reduced rutile $TiO_{2-x}$* **15**, 2316-27 (1977).

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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 $SrTiO_3$ at high temperature* **22**, 5501-6 (1980).
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9. **F. GERVAIS**, *Temperature dependence of polar phonons, plasma excitations and effective charges below the semiconducting-metal phase transition of $NbO_2$* **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 $KTa_{1-x}Nb_xO_3$ for a Nb concentration x = 0.018* **28**, 6041-50 (1983).

11. **F. GERVAIS et W. KRESS**, *Lattice dynamics of incipient ferroelectric rutile* $TiO_2$ **28**, 2962-8 (1983).

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13. **F. GERVAIS et W. KRESS**, *Lattice dynamics of oxides with rutile structure and instabilities at the metal-semiconductor phase transitions of $NbO_2$ and $VO_2$* **31**, 4809-14 (1985).
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26. **R.P.S.M. LOBO, F.J. GOTOR, P. ODIER, F. GERVAIS**, *Decoupling excitations in the far-infrared spectra of c–axis $YBa_2Cu_3O_{7-\delta}$ single crystal,* **53**, 410-4 (1996).

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2 **Prix Nobel de Physique**

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34. **H. Bouyanfif, J. Wolfman, M. El Marssi, Y. Yuzyuk, R. Bodeux, M. Gervais, F. Gervais** *Combinatorial $(Ba,Sr)TiO_3$ thin film growth : X-ray diffraction and Raman spectroscopy investigation,* **106** (2009) 034108.

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39. **L. PINTSCHOVIUS, J.M. BASSAT, P. ODIER, F. GERVAIS, B. HENNION et W. REICHARDT**, *Phonon anomalies in $La_2NiO_4$* **5**, 247-52 (1988).

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41. **K.A. MÜLLER,(3) Y. LUSPIN, J.L. SERVOIN, F. GERVAIS,** *Displacive-order-disorder crossover at the ferroelectric-paraelectric phase transitions of $BaTiO_3$ and $LiTaO_3$* **43**, 537-42 (1982).

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

3 **Prix Nobel de Physique**

***JOURNAL OF CHEMICAL PHYSICS***

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47. **F. GERVAIS et B. PIRIOU**, *Anharmonicity in several-polar-mode crystals: adjusting phonon self-energy of TO and LO modes in $Al_2O_3$ and $TiO_2$ to fit infrared reflectivity* **7**, 2374-86 (1974).
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50. **Y. LUSPIN, J.L. SERVOIN et F. GERVAIS**, *Soft mode spectroscopy in barium titanate* **13**, 3762-73 (1980).
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54. **V. ZELEZNY, P. SIMON, F. GERVAIS et C. BARTA**, *High-temperature infrared reflectivity spectroscopy in lead chloride* **21**, 4727-36 (1988).

55. **A. BOUMRICHE, P. SIMON, M. ROUSSEAU, J.Y. GESLAND et F. GERVAIS**, *Infrared dispersion of $BaLiF_3$* **1**, 5613-20 (1989).

56. **F. BREHAT, B. WYNCKE et F. GERVAIS**, *Anisotropy of effective charge in $NaNO_2$, $NaNO_3$, $KNO_3$ and $CaCO_3$* **1**, 9001-8 (1989).

57. **M.L. SANTOS, A. ALMEIDA, M.R. CHAVES, A. KLÖPPERPIEPER, J. ALBERS, J.A. GOMES-MOREIRA, F. GERVAIS,** *Infrared reflectivity spectroscopy of phase transitions in betaine phosphate* ***9,*** 8119-34 (1997).

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59. **S. PESSAUD, F. GERVAIS, D. DE SOUSA, R. LOBO, C. CHAMPEAUX, P. MARCHET, A. CATHERINOT, M. LICHERON, J. L. LONGUET, F. RAVEL,** *Optical conductivity of high-$T_c$ cuprate thin films deposited by multi-target laser ablation* **12**, 1517-25 (2000).

60. **P. THIBAUDEAU, F. GERVAIS**, *Ab initio calculation of phonon modes in $MgAl_2O_4$ spinel* 14 (2002) 3543-52.

61. **N.H. HONG, J. SAKAI, J. G. NOUDEM, A. HASSINI, F. GERVAIS, M. GERVAIS,** *Ru doped $La_{0.7}(Ba\text{-}Ca)_{0.3}MnO_3$ thin films: Indirect Evidence of Phase Separation* **15** (2003) 6527-6536.

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***EUROPEAN PHYSICS JOURNAL B***

63. **PETIT N., F. GERVAIS, P. BUVAT, P. HOURQUEBIE, P. TOPART,** *Analysis of infrared reflectivity of conducting polymers : example of camphor-sulphonic-acid-doped polyaniline* **12**, 367-72 (1999).

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65. **N. PETIT, V. GARNIER, V. TA PHUOC, R. CAILLARD, A.M. FRELIN, A. RUYTER, I. LAFFEZ, J-C. SORET, A. MAIGNAN, F. GERVAIS,** *Polarized infrared reflectivity study of an oriented ceramic of* $Bi_2Sr_2Ca_2Cu_3O_{10+\delta}$ *(Bi-2223)* **25** (2002) 423-9.

66. **F. GERVAIS, N. PETIT, C. POPON, P. BUVAT**, *Doping dependence of infrared conductivity of camphor-sulphonic-acid-doped polyaniline* **31** (2003) 47-52.

67. **C. Autret-Lambert, M. Gervais, M. Zaghrioui, S. Roger, F. Gervais, N. Raimboux, and P. Simon,** *Temperature dependence of phase separation and magnetic anisotropy by electron spin resonance in* $Pr_{0.6}Ca_{0.4}Mn_{0.9}Ru_{0.1}O_3$, **47** (2005) 207.

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69. **L. PINTSCHOVIUS, J.M. BASSAT, P. ODIER, F. GERVAIS, B. HENNION et W. REICHARDT**, *Phonon anomalies in* $La_2NiO_4$ **153**, 276-7 (1988).

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82. **F. GERVAIS et H. AREND**, *Long-wavelength phonons in the four phases of* $\{N(CH_3)_4\}_2CuCl_4$ *and effective charges* **50**, 17-22 (1983).

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329. Université de Würzburg (1982)
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331. Université de Belo Horizonte (1992)
332. Université de Braga (1996)
333. Université de Louvain la Neuve (1997)
334. New York (2005)
335. GIST Gwangju (2007)
336. Université de Séoul (2007)
337. Université de Catane (2008)

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340. 4ièmes Rencontres Scientifiques de la Région Centre (1997)
341. « Détours en sciences » (2002)
342. « Campus Grandmont » (2005)
343. Café des Sciences dans le cadre de l'année mondiale de la Physique (2005)
344. « Matériaux à Propriétés remarquables », Conférence inaugurale du Forum des doctorants de l'Université François Rabelais, Tours, 2008
345. « Efficacité énergétique, des solutions pour l'habitat de demain », Rencontres sciences éducation : « Nouvelles sources d'énergie », Tours (2009)
346. Sous l'égide des ingénieurs et scientifiques de Touraine et de Centre.Sciences, sur l'effet de serre du $CO_2$, Tours (2010)
347. « Energie, ressources et recyclage » dans le cadre des Mercredis de Thélème, Tours (2011)

348. En cas de physique, Tours (2012)
349. Université inter-âges, Saumur (2013)
350. Collège inter-âges, La Baule (2013)
351. Institut de Gestion de Rennes, Rennes (2014)
352. Rencontrer-Interroger-Connaître en partenariat avec Centre.Sciences, Fête de Science, Tours (2014)
353. Groupement HEC Alumni Géostratégies, Paris (2014)
354. Coordination Rurale lors de son Assemblée Générale annuelle, Agen (2014)
355. Coordination Rurale en Charente-Maritime, Saintes (2015)
356. Solidarité & Progrès, Paris (2015) – Conférence filmée, plus de *65 000 vues*
**www.youtube.com/watch?v=6XDdfCLY3TI**
357. Conférence internationale de l'Institut Schiller, Paris (2015)
**www.youtube.com/watch?v=yJg01RZ-9zA**
358. Association Réalités et Relations Internationales, IPSEC, Paris (2015)
359. Société de Géographie, Tours (2015)
360. ACR, Paris (2015)
361. Mairie de Livry-Gargan (2015)
362. Université du Temps Libre, Université François Rabelais, Tours (2016)
363. UTL, Université François Rabelais, Fondettes (2016)
364. Mairie de Livry-Gargan (2016)
365. Institut de Locarn (2016)
366. ACR, Paris (2016)
367. Académie des Sciences, Arts et Belles-Lettres de Touraine, Tours (2016)
368. Ecole de Management de Normandie, Le Havre (2017)
369. UTL, Université François Rabelais, Saint-Cyr sur Loire (2017)
370. UTLV, Vendôme (2017)
371. Société Française de l'énergie nucléaire PACA, Faculté de Pharmacie, Marseille (2018)
372. Société des Ingénieurs & Scientifiques de France, Centre Val de Loire, Polytech'Tours (2018)
373. Mouvement National de Lutte pour l'environnement, Montreuil (2018)
374. Solidarité et Progrès, Clichy (2018)
375. ACR, Paris (2018)