

# CURRICULUM VITAE

---

## KARIMA HORCHANI-NAIFER

Professeur

Chef de Laboratoire de Physico-Chimie des Matériaux Minéraux et leurs Applications,  
Centre National de Recherche en Sciences des Matériaux, Technopole Borj Cédria.  
B.P.73 – 8027. Soliman. Tunisie.

E-mails : karima\_horchani@yahoo.com / karima.horchani@inrst.rnrt.tn

### Diplômes

**16 septembre 2015** : Attestation de formation ; Responsable marketing dans les structures des recherches ; Programme PASRI.

**14 Novembre 2009** : Attestation d'Habilitation Universitaire en Chimie, Faculté des Sciences de Bizerte.

**16 Mai 2003** : *Diplôme de Doctorat de Chimie, Université Claude Bernard Lyon1, France. Mention Très honorable.* Co-tutelle entre la Faculté des Sciences de Bizerte, Tunisie, et l'Université Claude Bernard Lyon 1, France

**2000-2001** : *Diplôme d'Université : Techniques Informatiques pour Scientifiques. Université Claude Bernard Lyon1, France.*

**5 Juillet 1999** : DEA de Chimie-Physique, Faculté des Sciences de Bizerte.

**Juin 1998** : A. E. A. Chimie-physique. Faculté des Sciences de Bizerte.

**Juin 1997**: Maîtrise Sciences Physiques. Faculté des Sciences de Bizerte.

### Domaines de recherche

- Matériaux phosphatés et oxydes: cristaux, poudres micrométriques et nanométriques.
- Résolution structurale et propriétés cristallographiques
- Propriétés de luminescence des ions de terre rares
- Propriétés électriques
- Calculs DFT et modélisation
- Valorisation du phosphate naturel et du phosphogypse, extraction des éléments de terres rares.

### Expérience Professionnelle

**Depuis 2016** Professeur et Chef de Laboratoire de Physico-Chimie des Matériaux Minéraux et leurs Applications.

**2011-2016** Maître de Conférences : Centre National de Recherche en Sciences des Matériaux, Technopole Borj Cédria.

**2005-2010** Maître Assistante : Centre National de Recherche en Sciences des Matériaux, Technopole Borj Cédria.

**2003-2004** Assistante : Centre National de Recherche en Sciences des Matériaux, Technopole Borj Cédria.

**Premier semestre 2004/2005** : Enseignement de travaux dirigés de Chimie Générale à l'institut Supérieur des Sciences et Technologie de l'Environnement. Borj Cédria

**Deuxième semestre 2004/2005** : Enseignement de travaux dirigés et travaux pratiques de Chimie Minérale à l'institut Supérieur des Sciences et Technologie de l'Environnement. Borj Cédria

Publications

1. **K. HORCHANI**, M. FÉRID, M. TRABELSI-AYEDI "Chemical preparation and thermal behaviour of neodymium cyclotriphosphate tetrahydrate  $\text{NdP}_3\text{O}_9 \cdot 4\text{H}_2\text{O}$ ." *Solid State Sciences*. 3 (2001) 347.
2. **K. HORCHANI**, M. FÉRID, M. TRABELSI-AYEDI " Chemical preparation and thermal behaviour of neodymium cyclotriphosphate  $\text{Na}_3\text{Nd}_3(\text{P}_3\text{O}_9)_4 \cdot 13\text{H}_2\text{O}$ ." *Materials Research Bulletin*. 36 (2001) 897.
3. **K. HORCHANI**, J. C. GACON, C. DUJARDIN, N. GARNIER, C. GARAPON, M. FERID, M. TRABELSI-AYEDI "Luminescence properties of  $\text{CsPrP}_4\text{O}_{12}$  and  $\text{RbPrP}_4\text{O}_{12}$ ." *Journal of Luminescence* 94-95 (2001) 69.
4. **K. HORCHANI**, J. C. GACON, C. DUJARDIN, N. GARNIER, M. FERID, M. TRABELSI-AYEDI "Scintillation properties of  $\text{CsPrP}_4\text{O}_{12}$  and  $\text{RbPrP}_4\text{O}_{12}$ ." *Nuclear Instruments and Methods A* 486 (2002) 283.
5. **K. HORCHANI**, M. FERID, J.-C. GACON, S. LECOCQ, M. TRABELSI-AYEDI and I. GREGORA "Structure refinement, infrared and Raman spectra of  $\text{KDyP}_4\text{O}_{12}$ ." *Materials Research Bulletin* 37 (2002) 1259.
6. **K. HORCHANI**, J. C. GÂCON, M. FÉRID, O. KRACHNI, G. K. LIU et M. TRABELSI-AYEDI "Energy levels of  $\text{Pr}^{3+}$  in  $\text{CsPrP}_4\text{O}_{12}$  and  $\text{RbPrP}_4\text{O}_{12}$  cyclotetraphosphates." *Optical Materials*, 24(1-2)(2003)169.
7. M.FERID, **K.HORCHANI**, A.TOUATI, A.MADANI, H.BOUSSETTA et M.TRABELSI-AYADI "Etude des propriétés de conduction électrique des phosphates condensés mixtes éléments monovalents-terres rares :  $\text{LiDy}(\text{PO}_3)_4$ ,  $\text{NaNd}(\text{PO}_3)_4$ ,  $\text{AgLa}(\text{PO}_3)_4$ ,  $\text{NH}_4\text{Dy}(\text{PO}_3)_4$ ." *Journal de Physique IV France* 113 (2004 ) 115.
8. M. FÉRID, **K.HORCHANI** and J. AMAMI "Preparation, structure and infrared spectrum of  $\text{NaEuP}_2\text{O}_7$ ." *Materials Research Bulletin*, 39 (2004)1945.
9. M. FÉRID and **K. HORCHANI-NAIFER** " Synthesis, crystal structure and vibrational spectra of a new form of diphosphate  $\text{NaLaP}_2\text{O}_7$ ." *Materials Research Bulletin*, 39 (2004) 2209.
10. M. FERID, **K. HORCHANI-NAIFER** and M. TRABELSI-AYADI " Crystal structure of sodium ytterbium diphosphate,  $\text{NaYbP}_2\text{O}_7$  " *Z. Kristallogr.NCS*, 219 (2004) 353.
11. J. AMAMI, **K. HORCHANI**, D. MERLE et M. FERID " Caractérisation et étude structurale  $\text{NaHo}(\text{PO}_3)_4$  " *Journal de Physique IV*, 122 (2004) 111.
12. **K. HORCHANI**, J. AMAMI, D. MERLE et M. FERID: "Caractérisation spectroscopique et étude structurale de  $\text{RbEr}(\text{PO}_3)_4$ ". *Journal de Physique IV*, 122 (2004) 123.
13. **K. HORCHANI-NAIFER**, M. FÉRID et M. TRABELSI-AYADI (2005) " Synthesis and Crystal Structure of Triphosphate  $\text{RbPrHP}_3\text{O}_{10}$ ." *Materials Research Bulletin*, 40 (2005)307.
14. **K. HORCHANI-NAIFER** AND M. FÉRID " Structure and ionic conductivity of  $\text{NaCeP}_2\text{O}_7$ ." *Solid State Ionics*, 176 (2005) 1949.
15. J. C. GÂCON, **K. HORCHANI-NAIFER**, A. JOUINI, C. DUJARDIN AND I. KAMENSKIKH " Optical properties of praseodymium concentrated phosphates " *Optical Materials*, 28 (2006)14.
16. E. BEN ZARKOUNA, **K. HORCHANI-NAIFER**, M. FÉRID AND A.DRISS " $\text{LiTb}(\text{PO}_3)_4$ " *Acta Crystallography*. E63 (2007) i1.
17. **K. HORCHANI-NAIFER** AND M. FÉRID " Potassium ytterbium diphosphate " *Acta Crystallography*. E63 (2007) i33.

18. **K. HORCHANI-NAIFER** AND M. FÉRID " A new polymorph of  $CsPr(PO_3)_4$  " *Acta Crystallography. E63* (2007) i131.
19. M. FERHI, **K. HORCHANI-NAIFER** AND M. FÉRID " Hydrothermal Synthesis and Photoluminescence of the monophosphate  $LaPO_4: Eu(5\%)$  " *Journal of Luminescence* 128 (2008) 1777.
20. **K. HORCHANI-NAIFER** AND M. FÉRID " Lutetium ultraphosphate " *Acta Crystallography. E64* (2008) i33.
21. **K. HORCHANI-NAIFER**, A. JOUINI AND M. FÉRID " Crystallographic polymorph of  $KY(PO_3)_4$  " *Acta Crystallography. E64* (2008) i34.
22. A. BEJAOUI, **K. HORCHANI-NAIFER**, M. FÉRID " A new polymorph of  $Lu(PO_3)_3$  " *Acta Crystallography. E64* (2008) i48.
23. **K. HORCHANI-NAIFER**, J. AMAMI AND M. FÉRID " Crystal structure and infrared spectrum of thallium holmium polyphosphate,  $TlHo(PO_3)_4$  " *Journal of Rare Earth*, 26 (2008) 765.
24. M. FERID and **K. HORCHANI-NAIFER** " Synthesis and Crystal Structure of a New Potassium Yttrium Diphosphate Dihydrate " *Chinese J. Struct. Chem.* 27(10) (2008) 1199.
25. **K. HORCHANI-NAIFER**, M. FÉRID" Crystal structure, energy band and optical characterizations of praseodymium monophosphate  $PrPO_4$ " *Inorganica Chimica Acta*, 362(2009) 1793.
26. **K. HORCHANI-NAIFER**, J. AMAMI AND M. FÉRID " Synthesis and crystal structure of sodium praseodymium polyphosphate,  $NaPr(PO_3)_4$  " *Journal of Rare Earth*, 27(1)(2009)1.
27. M. FERHI, **K. HORCHANI-NAIFER** AND M. FÉRID " Combustion Synthesis and Luminescence Properties of  $LaPO_4: Eu(5\%)$  " *Journal of Rare Earth*, 27(2)(2009)182.
28. I. HAMMAS, **K. HORCHANI-NAIFER** AND M. FÉRID " Conduction properties of condensed lanthanum phosphates:  $La(PO_3)_3$  and  $LaP_5O_{14}$ " *Journal of Rare Earth*, 28(3) (2010) 321.
29. M. FERHI, **K. HORCHANI-NAIFER** S. HRAIECH, M. FÉRID, Y. GUYOT AND G. BOULON " Near infrared and charge transfer luminescence of  $Yb^{3+}$ -doped  $LaPO_4$  at room temperature. " *Radiation Measurements*, 46(10) (2011)1033.
30. M. FERHI, **K. HORCHANI-NAIFER** AND M. FÉRID " Spectroscopic properties of  $Eu^{3+}$ -doped  $KLa(PO_3)_4$  and  $LiLa(PO_3)_4$  powders. " *Optical Materials*, 26(4) (2011)545.
31. M. Ferhi, **K. Horchani-Naifer**, S. Hraiech, M. Férid, Y. Guyot and G. Boulon. " Near Infrared and charge transfer luminescence of trivalent ytterbium in  $KLa(PO_3)_4$  powders." *Optics Communications* 285 (2012) 2874–2878.
32. Refka Andoulsi, **Karima Horchani-Naifer** and Mokhtar Férid." Preparation of lanthanum ferrite powder at low temperature." *Ceramica* 58 (2012)126.
33. M. Ferhi, **K. Horchani-Naifer** and M. Férid." Modeling Li-ion conductivity in  $LiLa(PO_3)_4$  powder." *Physica B: Condensed Materials* 407 (13) (2012) 2593.
34. Andoulsi, R., **Horchani-Naifer, K.**, Férid, M. " Structural and electrical properties of calcium substituted lanthanum ferrite powders" *Powder Technology* 230 (2012) 183.
35. Dhahri, A., **Horchani-Naifer, K.**, Benedetti, A., Enrichi, F., Férid, M. "Combustion synthesis and photoluminescence of  $Eu^{3+}$  doped  $LaAlO_3$  nanophosphors." *Optical Materials* 34 (2012) 1742.
36. Dhahri, A., **Horchani-Naifer, K.**, Benedetti, A., Enrichi, F., Férid, M., Riello, P. " Combustion synthesis and photoluminescence of  $Tb^{3+}$  doped  $LaAlO_3$  nanophosphors" *Optical Materials* 35 (6), (2013) 1184-1188.
37. Andoulsi, R., **Horchani-Naifer, K.**, Férid, M. "Electrical conductivity of  $La_{1-x}Ca_xFeO_3$ -solid solutions" *Ceramics International* . 39 (2013) 6527–6531.
38. M. Mesfar, **K. Horchani-Naifer**, M. Abdelhedi, M. Dammak, M. Ferid " Spectroscopic properties of  $Eu^{3+}$  doped  $RbLaP_4O_{12}$  powders". *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 114 (2013) 154-158

39. Dhahri, A., **Horchani-Naifer, K.**, Benedetti, A., Enrichi, F., Férid, M., Riello, P. "Combustion synthesis and spectroscopic characterization of LaAlO<sub>3</sub> nanophosphors doped Er<sup>3+</sup> ions" *Ceramics International* 39 (8) (2013) 9613-9617.
40. I. Hammas, **K. Horchani-Naifer**, M. Férid "Characterization and Optical Study of Phosphogypsum Industrial Waste" *Studies in Chemical Process Technology* 1 (2) (2013) 30.
41. A. Bejaoui, **K. Horchani-Naifer** and M. Férid "Ionic conduction, Bond valence analysis of structure-property relationships of NaHoP<sub>2</sub>O<sub>7</sub>" *Journal of Solid State Chemistry* 204 (2013) 224.
42. A. Bejaoui, **K. Horchani-Naifer**, **S. Hraiech** and M. Férid "Optical properties of lutetium diphosphates powders doped by ytterbium" *Optical Materials* 36 (2) (2013) 310.
43. I. Hammas, **K. Horchani-Naifer**, M. Férid "Solubility study and valorization of phosphogypsum salt solution" *International Journal of Mineral Processing* 123(2013)87.
44. Andoulsi R, **Horchani-Naifer K**, Férid M. Effect of the preparation route on the structure and microstructure of LaCoO<sub>3</sub>. *Chemical Papers* 2014;68(5):608-13.
45. Béjaoui A, **Horchani-Naifer K**, Hajji M, Férid M. Crystal structure, physical properties and bond valence analysis of NaLuP<sub>2</sub>O<sub>7</sub>. *Solid State Sciences* 2014;31:46-53.
46. Dhahri A, **Horchani-Naifer K**, Benedetti A, Enrichi F, Férid M. Combustion synthesis and photoluminescence properties of LaAlO<sub>3</sub> nanophosphors doped with Yb<sup>3+</sup> ions. *J Lumin* 2014;153:408-11.
47. Ferhi M, Bouzidi C, **Horchani-Naifer K**, Elhouichet H, Férid M. Judd-ofelt analysis of spectroscopic properties of Eu<sup>3+</sup> doped KLa(PO<sub>3</sub>)<sub>4</sub>. *J Lumin* 2014;157:21-7.
48. Chemingui S, Ferhi M, **Horchani-Naifer K**, Férid M. Synthesis, characterization and optical properties of NH<sub>4</sub>Dy(PO<sub>3</sub>)<sub>4</sub>. *Journal of Solid State Chemistry* 2014;217:99-104.
49. Ferhi M, Bouzidi C, **Horchani-Naifer K**, Elhouichet H, Férid M. Judd-ofelt analysis and radiative properties of LiLa<sub>(1-x)</sub>Eu<sub>x</sub>(PO<sub>3</sub>)<sub>4</sub>. *Optical Materials* 2014.
50. Ferhi M, **Horchani-Naifer K**, Bouzidi C, Elhouichet H, Férid M. Crystal structure, electronic properties and optical band gap of KLa<sub>(1-x)</sub>Eu<sub>x</sub>(PO<sub>3</sub>)<sub>4</sub>. *J Alloys Compounds* 2014;609:222-7.
51. Chékir-Mzali J, **Horchani-Naifer K**, Férid M. Structural study and spectroscopic properties of NH<sub>4</sub>Er(PO<sub>3</sub>)<sub>4</sub>. *J Alloys Compounds* 2014;612:372-9.
52. Khadraoui Z, Bouzidi C, **Horchani-Naifer K**, Férid M. Crystal structure, energy band and optical properties of dysprosium monophosphate DyPO<sub>4</sub>. *J Alloys Compounds* 2014;617:281-6.
53. Hammami, M., Ennigrou, D.J., **Naifer-Horchani K.**, Férid, M. "Retention of samarium ions from aqueous solutions by poly(acrylic acid)-enhanced ultrafiltration" (2014) *Desalination and Water Treatment*, 8 p.
54. Elgharbi, S., **Horchani-Naifer, K.**, Férid, M. "Investigation of the structural and mineralogical changes of Tunisian phosphorite during calcinations" (2015) *Journal of Thermal Analysis and Calorimetry*, 119 (1), pp. 265-271.
55. Ben Hassen, N., Ferhi, M., **Horchani-Naifer, K.**, Férid, M. "Structure determination and optical properties of CsSm(PO<sub>3</sub>)<sub>4</sub>" (2015) *Materials Research Bulletin*, 63, pp. 99-104.
56. M. Abdelhedi, **Horchani-Naifer, K.**, M. Dammak and Férid, M. "Structural and spectroscopic properties of pure and doped LiCe(PO<sub>3</sub>)<sub>4</sub>" *Materials Research Bulletin* 70 (2015) 303-308.
57. Ben Hassen, N., Ferhi, M., **Horchani-Naifer, K.**, Férid, M. "Synthesis, characterization and optical properties of LiSm(PO<sub>3</sub>)<sub>4</sub> phosphor" *Optical Materials* (2015) 44 pp 355.
58. Jalila Chékir-Mzali, Karima Horchani-Naifer, Mokhtar Férid, Synthesis of Er<sup>3+</sup>-doped Na<sub>3</sub>La(PO<sub>4</sub>)<sub>2</sub> micro-powders and photoluminescence properties, Superlattices and Microstructures, Volume 85, 2015, P 445-453
59. S. Chemingui, M. Ferhi, **K. Horchani-Naifer**, M. Férid, Synthesis and luminescence characteristics of Dy<sup>3+</sup> doped KLa(PO<sub>3</sub>)<sub>4</sub>, *Journal of Luminescence*, Volume 166, 2015,

Pages 82-87.

**60.** I. Soltani, S. Hraiech, **K. Horchani-Naifer**, H. Elhouichet, M. Férid, Effect of silver nanoparticles on spectroscopic properties of Er<sup>3+</sup> doped phosphate glass, *Optical Materials*, Volume 46, 2015, Pages 454-460.

**61.** Z. Khadraoui, **K. Horchani-Naifer**, M. Ferhi, M. Ferid, Synthesis, characterization and DFT calculations of electronic and optical properties of YbPO<sub>4</sub>, *Chemical Physics*, Volume 457, 18 August 2015, Pages 37-42.

**62.** Z. Khadraoui, **K. Horchani-Naifer**, M. Ferhi, M. Ferid, Electronic structure and optical properties of TbPO<sub>4</sub>: Experiment and density functional theory calculations, *Optical Materials*, Available online 25 June 2015.

**63.** I. Hammam Nasri, **K. Horchani-Naifer**, M. Férid and D. Barca, Rare Earth Luminescence in Phosphogypsum Waste Produced From Phosphate Ore Processing. *Mediterranean Journal of Chemistry* **2015**, 4(3), 138-144.

**64.** Andoulsi-Fezei, R., **Horchani-Naifer, K.**, Férid, "M. Influence of zinc incorporation on the structure and conductivity of lanthanum ferrite" *Ceramics International*, 42 (1), pp. 1373-1378.

**65.** Ferhi, M., Ben Hassen, N., Bouzidi, C., **Horchani-Naifer, K.**, Ferid, M. « Near-infrared luminescence properties of Yb<sup>3+</sup> doped LiLa(PO<sub>3</sub>)<sub>4</sub> powders » *Journal of Luminescence*, 170, pp. 174-179.

**66.** Siaï, A., **Horchani-Naifer, K.**, Haro-González, P., Férid, M. « Effect of ytterbium substitution on LaEr(1-x)YbxO<sub>3</sub> optical properties » *Journal of Luminescence*, 172, pp. 65-70.

**67.** Siaï, A., **Horchani-Naifer, K.**, Haro-González, P., Férid, M. « Effects of the preparation processes on structural, electronic, and optical properties of LaHoO<sub>3</sub> » *Materials Research Bulletin*, 2016, 76, pp. 179-186.

**68.** Hammam-Nasri, I., **Horchani-Naifer, K.**, Férid, M., Barca, D. Rare earths concentration from phosphogypsum waste by two-step leaching method (2016) *International Journal of Mineral Processing*, 149, pp. 78-83.

**69.** Soltani, I., Hraiech, S., **Horchani-Naifer, K.**, Massera, J., Petit, L., Férid, M. Thermal, structural and optical properties of Er<sup>3+</sup> doped phosphate glasses containing silver nanoparticles (2016) *Journal of Non-Crystalline Solids*, 438, pp. 67-73.

**70.** Chékir-Mzali, J., **Horchani-Naifer, K.**, Férid, M. Structural, characterization and spectroscopic properties of NH<sub>4</sub>YbP<sub>2</sub>O<sub>7</sub> micro-powders (2016) *Optik*, 127 (14), pp. 5622-5630.

**71.** Bouzidi, C., **Horchani-Naifer, K.**, Khadraoui, Z., Elhouichet, H., Ferid, M. Synthesis, characterization and DFT calculations of electronic and optical properties of CaMoO<sub>4</sub>. (2016) *Physica B: Condensed Matter*, 497, pp. 34-38.

**72.** Siaï, A., Haro-González, P., **Horchani-Naifer, K.**, Férid, M. La<sub>2</sub>O<sub>3</sub>: Tm, Yb, Er upconverting nano-oxides for sub-tissue lifetime thermal sensing (2016) *Sensors and Actuators, B: Chemical*, 234, pp. 541-548.

**73.** Soltani, I., Hraiech, S., **Horchani-Naifer, K.**, Elhouichet, H., Gelloz, B., Férid, M. Growth of silver nanoparticles stimulate spectroscopic properties of Er<sup>3+</sup> doped phosphate glasses: Heat treatment effect. (2016) *Journal of Alloys and Compounds*, 686, pp. 556-563.

**74.** Chaker, M., **Horchani-Naifer, K.**, Férid, M. Structural and optical studies of KErP<sub>2</sub>O<sub>7</sub> diphosphate (2016) *Journal of Alloys and Compounds*, 688, pp. 104-110.

**75.** Hammami, M., Ennigrou, D.J., **Horchani-Naifer, K.**, Ferid, M. Recovery of samarium (III) from aqueous solutions by poly(sodium 4-styrenesulfonate) assisted-ultrafiltration. (2016) *Environmental Progress and Sustainable Energy*, Volume 35, pp 1091–1097

## 70 Communications Nationales et Internationales

### Brevets

1. « Scintillateurs à base de phosphates condensés de praséodyme »  
**KARIMA HORCHANI-NAIFER, MOKHTAR FERID, JEAN-CLAUDE GACON, MALIKA TRABELSI-AYADI**  
*Déposé à l' INNORPI, le 17 mars 2006 sous le numéro 06088.*
2. « Luminophore rouge à base de monophosphates de terres rares »  
**KARIMA HORCHANI-NAIFER ET MOKHTAR FERID.**  
*Déposé à l' INNORPI, le 07 mai 2007 sous le numéro 07174.*
3. « Luminophore vert à base de monophosphates de terres rares »  
**KARIMA HORCHANI-NAIFER ET MOKHTAR FERID.**  
*Déposé à l' INNORPI, le 107 mai 2007 sous le numéro 07173.*
4. « Valorisation d'une solution saline de phosphogypse »  
Ines HAMMAS, **Karima HORCHANI-NEIFER** et Mokhtar FERID.  
*Déposé à L'INNORPI, le 17 mai 2012 sous le numéro TN 2012/0223.*

### Workshops

05-07 Novembre 2007 (Monastir) : *Ecole Tuniso-italienne d'automne de diffraction sur poudres : Résolution structurale ab-initio. ATC.*  
17 -19 mars 2008 (Mahdia) : *Ecole Tuniso-italienne sur la résolution structurale sur monocristal. ATC.*

### Encadrement

- 7 projets PFE
- 6 Mastères
- 6 thèses
- Co-encadrement : 8 thèses

### Reviewer et évaluateur d'articles scientifiques

pour les journaux :

- Optical Materials
- Journal of Alloys and Compounds
- Spectroscopy Letters
- Journal of Molecular Structure
- Science of Advanced Materials
- Ceramics International

### Animation scientifique

- Membre du Conseil Scientifique
- Membre de la cellule veille technologique et réseautage
- Membre de l'association Tunisienne de Cristallographie
- Membre fondateur du Laboratoire LPCMMA.

- Responsable scientifique :
  - \* Spectromètre de diffusion Raman
  - \* Spectrofluorimètre
  - \* Spectroscopie d'impédance complexe