

**Communications scientifiques du groupe Matériaux Luminescents de l'équipe
Matériaux Inorganiques de l'Institut de Chimie de Clermont-Ferrand
2016**

ARTICLES DANS DES REVUES INTERNATIONALES OU NATIONALES REPERTORIEES,
AVEC COMITE DE LECTURE
[ACL]

E. CAVALLI*, P. BOUTINAUD, M. GRINBERG

Luminescence dynamics in $\text{CaWO}_4:\text{Pr}^{3+}$ powders and single crystals.
Journal of Luminescence, 2016, **169**, 450-453.

M. A. HASSAIRI, A. G. HERNANDEZ, T. KALLEL, M. DAMMAK, D. ZAMBON, G. CHADEYRON*, A. POTDEVIN, D. BOYER, R. MAHIOU

Spectroscopic properties and Judd-Ofelt analysis of Eu^{3+} doped GdPO_4 nanoparticles and nanowires.
Journal of Luminescence, 2016, **170**, 200-206.

A. YAKOUBI, T. BEN CHAABANE, A. ABOULAICH, R. MAHIOU, L. BALAN, G. MEDJAHDI, R. SCHNEIDER*

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Journal of Luminescence, 2016, **175**, 193-202.

A. WATRAS*, P. BOUTINAUD, R. PAZIK, P.J. DEREN

Luminescence-structure relationships in $\text{MYP}_2\text{O}_7: \text{Eu}^{3+}$ (M=K, Rb, Cs).
Journal of Luminescence, 2016, **175**, 249-254.

M. DERBEL, A. MBAREK*, G. CHADEYRON, M. FOURATI, D. ZAMBON, R. MAHIOU

Novel bluish white-emitting $\text{CdBaP}_2\text{O}_7:\text{Eu}^{2+}$ phosphor for near-UV white-emitting diodes.
Journal of Luminescence, 2016, **176**, 356-362.

S. MAHLIK*, M. AMER, P. BOUTINAUD*

Energy Level Structure of Bi^{3+} in Zircon and Scheelite Polymorphs of YVO_4 .
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A. PERTHUÉ, P. BOUTINAUD, S. THERIAS, J.-L. GARDETTE,

Influence of down shifting particles on the photochemical behaviour of EVA copolymers,
Polymer Degradation and Stability, 2016, **133** 144-151

A. POTDEVIN*, V. BRIOIS, N. CAPERAA, C. V. SANTILLI, G. CHADEYRON, R. MAHIOU

A thorough spectroscopic study of luminescent precursor solution of $\text{Y}_3\text{Al}_5\text{O}_{12}:\text{Tb}^{3+}$: influence of acetylacetone.

RSC Advances, 2016, **6**, 41962-41971

R. BOONSIN, G. CHADEYRON*, J.-P. ROBLIN, D. BOYER, R. MAHIOU

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Journal of Materials Chemistry C, 2016, **4**, 6562-6569.

F. BOUDJOUAN, A. CHELOUCHE*, T. TOUAM, D. DJOUADI, R. MAHIOU, G. CHADEYRON, A. FISCHER, A. BOUDRIOUA

Doping effect investigation of Li-doped nanostructured ZnO thin films prepared by sol-gel process.
Journal of Materials Science-Materials in Electronics, 2016, **27**, 8040-8046.

H. EL HAMZAOUI, B. CAPOEN, N. AL HELOU, G. BOUWMANS, Y. OUERDANE, A. BOUKENTER, S. GIRARD, C. MARCANDELLA, O. DUHAMEL, G. CHADEYRON, R. MAHIOU, M. BOUZAOU

Cerium-activated sol-gel silica glasses for radiation dosimetry in harsh environment.
Materials Research Express, 2016, **3**, 046201.

N. FRANCOLON, D. BOYER*, F. LECCIA, E. JOUBERTON, A. WALTER, C. BORDEIANU, A. PARAT, D. FELDER-FLESCH, S. BEGIN-COLIN, E. MIOT-NOIRAUT, J.M. CHEZAL, R. MAHIOU

Preparation of core/shell $\text{NaYF}_4:\text{Yb}, \text{Tm}$ @dendrons nanoparticles with enhanced upconversion luminescence for in vivo imaging

Nanomedicine: Nanotechnology, Biology and Medicine **12** (2016) 2107-2113

A. BOUKHRISS, S. GMOUH, H. HANNACHE, J.P. ROBLIN, O. CHERKAOUI, D. BOYER

Treatment of cotton fabrics by ionic liquid with PF_6^- anion for enhancing their flame retardancy and water repellency

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GARRIDO HERNÁNDEZ, A. GARCÍA MURILLO, F. DE J. CARRILLO ROMO, D. BOYER, A. POTDEVIN, G. CHADEYRON, J. REYES MIRANDA
Photoluminescence behavior of $\text{YPO}_4:\text{Tb}^{3+}$ crystallized in monoclinic, hexagonal or tetragonal phase obtained by hydrothermal process"
Materials Research Bulletin **84** (2016) 225-231.

A. CHELOUCHE, T. TOUAM, F. BOUDJOUAN, D. DJOUADI, R. MAHIOU, A. BOULOUFA, G. CHADEYRON & Z. HADJOUR
Investigation of Na doping effects on structural, electrical and optical properties of sol-gel derived ZnO thin films
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M.A. HASSAIRI, M. DAMMAK, D. ZAMBON, G. CHADEYRON & R. MAHIOU
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Journal of Luminescence, 2016, **181**, 393-399.

M. ABOUSSATAR, A. MBAREK, H. NAILI, M. EL-GHOZZI, G. CHADEYRON, D. AVIGNANT, D. ZAMBON
Phase equilibria in the NaF-CdO-NaPO_3 system at 873K and crystal structure and physico-chemical characterizations of the new $\text{Na}_2\text{CdPO}_4\text{F}$ fluorophosphates
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CONFERENCES INVITEES

R. MAHIOU, D. BOYER, A. POTDEVIN, G. CHADEYRON
Potentialités d'applications de matériaux hybrides pour l'optique et la photonique
Congrès SFO-JNPO, 04-07 juillet 2016

G. CHADEYRON
Le rôle des luminophores dans les dispositifs d'éclairage à LEDs
Workshop : « la photonique appliquée à l'électronique » Bordeaux le 18 mai 2016

G. CHADEYRON
Development of new phosphors for LEDs Lighting
Workshop Materials for Optics and Optoelectronics 8-9 juin 2016, PARIS

M. AMER, P. BOUTINAUD
The environmental factor model: a tool for the design of Eu^{2+} -doped monophosphate phosphors?
6th International Conference on Excited States of Transition Elements, Polanica Zdrój (Poland), 21 - 26 Août 2016.

COMMUNICATIONS ORALES DANS DES CONGRES INTERNATIONAUX

N. PRADAL, A. POTDEVIN, G. CHADEYRON, P. BONVILLE & R. MAHIOU
« Enhancement of thermal behavior of $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu}^{2+}$ blue phosphors using a microwave assisted combustion synthesis process »
CIMTEC2016, Perugia (Italie), 5-9 juin 2016.

D. BOYER, G. CHADEYRON, P. VIALAT, R. BOONSIN, R. MAHIOU
"Development of phosphors for white light emitting diodes"
7th International Symposium on Optical Materials, Lyon, 1-4 mars 2016

G. PALACIO, D. BOYER, S. H. PULCINELLI, C.V. SANTILLI, S. THERIAS, R. MAHIOU
"New hybrid materials constituted of PEO and PPO based siloxanes: photostability study and embedding of Li^+ / Eu^{3+} ions"
European Materials Research Society Spring Meeting (E-MRS), Lille, 2-6 mai 2016

R. BOONSIN, P. VIALAT, D. BOYER, G. CHADEYRON, R. MAHIOU
"Development of rare-earth-free luminescent composites for blue-LED based lighting devices "
European Materials Research Society Spring Meeting (E-MRS), Lille, 2-6 mai 2016

N. FRANCOLON, D. BOYER, F. LECCIA, E. JOUBERTON, A. WALTER, C. BORDEIANU, A. PARAT, D. FELDER-FLESCH, E. MIOT-NOIRAL, J.M. CHEZAL AND R. MAHIOU
"Development of $\text{NaYF}_4:\text{Yb},\text{Tm}$ @dendrons nanoparticles for near infrared in vivo fluorescence imaging"
European Materials Research Society Spring Meeting (E-MRS), Lille, 2-6 mai 2016

A. BARROS, P. BOUTINAUD, G. CHADEYRON, R. MAHIOU

Degradation processes in the red emitting phosphor $\text{Na}_2\text{SiF}_6\text{-Mn}^{4+}$ exposed to thermal and blue LED irradiation stresses

19th Conference on Dynamical Processes in Excited States of Solids, Paris, 17-22 juillet 2016.

M. ABOUSSATAR, H. NAILI, D. ZAMBON, M. EL-GHOZZI, D. AVIGNANT

Synthesis, crystal structure and physico-chemical characterizations of the new $\text{Na}_2\text{CdPO}_4\text{F}$ fluorophosphate

5th Tunisian Crystallographic Meeting (TCM5), 20-24 mars 2016, Hammamet, Tunisie.

W. LTAIEF, A. MBAREK, M. EL-GHOZZI, D. ZAMBON, H. NAILI, M. FOURATI

Structural and luminescence properties of Eu^{3+} and Tb^{3+} rare earth fluorophosphates with general formula $\text{LiY}_{1-x}(\text{PO}_4)_x\text{F}_4$ ($x = 2, 3$)

Structure-Property Relationships in Solid State Materials (SPSSM-2016), 1-6 juillet 2016, Nantes, France.

W. HAMI, D. ZAMBON, M. EL-GHOZZI, M. ELAATMANI, M. DAOUD, A. ZEGZOUTI

Synthesis and luminescence properties of pyrophosphate phosphors doped with rare earth

6th International Conference and Exhibition on Materials Science and Engineering (IOM3), 12-14 septembre 2016, Atlanta, USA.

COMMUNICATIONS ORALES DANS DES CONGRES NATIONAUX

A. VALETTE, P. GAUTIER, L. OMAR, T. CORNIER, Y. ZHU, A. APOSTOLUK, B. MASENELLI, G. CHADEYRON, A. POTDEVIN & S. DANIELE

« Hybrid ZnO mesospheres for white LED and photovoltaic markets »

12^{ème} Journée Sol-Gel et chimie liquid Rhône-Alpes Auvergne (JSGRAA12), Saint-Etienne, 24 mars 2016.

GUSTAVO PALACIO, DAMIEN BOYER, SANDRA H PULCINELLI, CELSO V. SANTILLI

“Study of electrical/structural properties for a hybrid blend materials Li^+ doped based PEO/PPO - siloxanes”

12^{ème} Journée Sol-Gel et chimie liquid Rhône-Alpes Auvergne (JSGRAA12), Saint-Etienne, 24 mars 2016.

AYOUB NADI, DAMIEN BOYER, SAID GMOUH, HASSAN HANNACHE

« Synthèse et caractérisation de nanoparticules magnétiques et leur application dans le développement de bioréacteur »

12^{ème} Journée Sol-Gel et chimie liquid Rhône-Alpes Auvergne (JSGRAA12), Saint-Etienne, 24 mars 2016.

M. ABOUSSATAR, H. NAILI, M. EL-GHOZZI, K. GUERIN, D. AVIGNANT, D. ZAMBON

Etude structurale du nouveau fluorophosphate $\text{Na}_2\text{CdPO}_4\text{F}$ et propriétés cristalochimiques et électrochimiques de différentes compositions $\text{Na}_2\text{Cd}_{1-x}\text{Mn}_x\text{PO}_4\text{F}$

Groupe Français d'Etude des Composés d'Insertion (GFECI), 14-17 mars 2016, Valençay, France.

S. Sebai, S. Hammami, A. Megriche, D. Zambon, R. Mahiou

Synthèse, caractérisation structurale et propriétés de luminescence de polyphosphates $\text{Li}_x\text{Na}_{(1-x)}\text{Sm}(\text{PO}_3)_4$ sous excitation VUV

UVX 2016, 13th Conference of coherent and incoherent sources UV, VUV, and X, applications and recent developments, Chinon, 11-14 octobre 2016.

POSTERS

M. SERAICHE, L. GUERBOUS, M. KECHOUANE, A. POTDEVIN, G. CHADEYRON & R. MAHIOU

« Spectroscopic properties of $\text{Eu}^{3+}:\text{GdBO}_3$ nanopowders obtained by the sol-gel method »

19th International Conference on Dynamical Processes in Excited States of Solids (DPC'16), Paris, 17-22 Juillet 2016.

N. FRANCOLON, F. LECCIA, E. JOUBERTON, D. BOYER, I. MILADI, D. FELDER-FLESCH, S. BEGIN-COLIN, L. MOREL, E. MIOT-NOIRAULT, J-M. CHEZAL, R. MAHIOU

“Novel hybrid nanoparticles using upconversion luminescence for in vivo imaging”

Forum de la Recherche en Cancérologie Rhône-Alpes Auvergne, 29-30 mars 2016, Lyon.

M. AMER, P. BOUTINAUD

The environmental factor model: a tool for the design of Eu^{2+} -doped monophosphate phosphors?

19th Conference on Dynamical Processes in Excited States of Solids, Paris, 17-22 juillet 2016.

M. ABOUSSATAR, A. MBAREK, H. NAILI, M. EL-GHOZZI, G. CHADEYRON, D. AVIGNANT, D. ZAMBON

Synthesis, crystal structure and Eu^{3+} optical studies of a new cadmium fluorophosphate with formula $\text{Na}_2\text{CdPO}_4\text{F}$
Structure-Property Relationships in Solid State Materials (SPSSM-2016), 1-6 juillet 2016, Nantes, France.

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BREVETS

"Composites luminescents"

R. BOONSIN, P. Vialat, G. Chadeyron, D. Boyer, F. Leroux, R. Mahiou,
Brevet FR N° 16/52133 du 14/03/2016

"Procédé de fabrication de particules submicroniques photoluminescentes"

A. Aboulaich, G. Chadeyron, R. Mahiou,
Brevet FR N°16/56171 du 30/06/2016.

ARTICLES DANS DES REVUES A COMITE DE LECTURE, NON REPERTORIEES

M. DRAMIĆANIN, B. VIANA, R. MAHIOU: Eds

ICOM2015 Book of Abstracts: The 4th International Conference on the physics of Optical Materials and devices, Budva, Montenegro, 24/3/2016, ISBN : 978-86-7306-134-4, 327 pages.