



# GEMaC

Groupe d'Étude  
de la Matière Condensée

## P2MC – PUBLICATIONS 2010-2014

**2014**

I. Gudyma, V. Ivashko, J. Linares,

**"Diffusionless phase transition with two order parameters in spin-crossover solids"**

,  
Journal of Applied Physics **116**, 173509 (2014)

D. Chiruta, C.M. Jureschi, J. Linares, A. Graur, M. Dimian, A. Rotaru,

**"Analysis of Architecture Effect on Hysteretic Behavior of 3-D Spin Crossover Nanostructures"**,

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A. Slimani, X. Yu, A. Muraoka, K. Boukheddaden, K. Yamashita,

**"Reparametrization Approach of DFT Functionals Based on the Equilibrium Temperature of Spin-Crossover Compounds"**,

J. Phys. Chem. A **118**, 9005 (2014)

S. Floquet, E. Rivière, K. Boukheddaden, D. Morineau, M.-L. Boillot,  
**"Neutral ferric complexes of salicylaldehyde thiosemicarbazone ligands: An exceptional family of complexes exhibiting discontinuous spin transition behavior"**,  
Polyhedron. **80**, 60 (2014)

C.-M. Jureschi, I. Rusu, E. Codjovi, J. Linares, Y. Garcia, A. Rotaru,  
**"Thermo- and piezochromic properties of [Fe(hyptrz)]A<sub>2</sub>-H<sub>2</sub>O spin crossover 1D coordination polymer: Towards spin crossover based temperature and pressure sensors"**,  
Physica B: Condensed Matter. **449**, 47 (2014)

M. Sy, F. Varret, K. Boukheddaden, G. Bouchez, J. Marrot, S. Kawata, S. Kaizaki,  
**"Structure-driven orientation of the high-spin-low-spin interface in a spin-crossover single crystal"**,  
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K. Boukheddaden, M. Paez-Espejo, F. Varret, M. Sy,  
**"Autocatalytic spin-crossover transition: Nonlinear dynamics induced by a photothermal instability"**,  
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A. Slimani, K. Boukheddaden, K. Yamashita,  
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**"Design and optical investigations of a spironaphthoxazine/polyoxometalate/spiropyran triad"**,  
J. Mater. Chem. C **2**, 4748 (2014)

D. Chiruta, J. Linares, S. Miyashita, K. Boukheddaden,  
**"Role of open boundary conditions on the hysteretic behaviour of one-dimensional spin crossover nanoparticles"**,  
Journal of Applied Physics **115**, 194309 (2014)

D. Chiruta, C. Chong, P.R. Dahoo, Y. Alayli, M. Dimian, J. Linares,  
**"Size, shape and temperature effects on Ferro/Antiferro-electric hysteresis loops from Monte Carlo simulations on 2D Ising model"**,  
in: 2014 International Conference on Development and Application Systems (DAS),  
2014: pp. 122–126

Y. Garcia, S.J. Campbell, J.S. Lord, J. Linares, M.M. Dîrtu, A.V. Pérez, Y. Boland, V. Ksenofontov, P. Gütlich,  
**"Spin conversion detected by Mössbauer spectroscopy and SR on a 1D Fell paramagnetic chain"**,  
Hyperfine Interact. **226**, 217 (2014)

J.A. Nasser, L. Chassagne, S. Topçu, J. Linares, Y. Alayli,  
**"Study of the atom-phonon coupling model for (SC) partition function: first order phase transition for an infinite linear chain"**,  
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D. Chiruta, J. Ctilin Maricel, J. Linares, Y. Garcia, A. Rotaru,  
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M. Paez-Espejo, M. Sy, F. Varret, K. Boukheddaden,  
**"Quantitative macroscopic treatment of the spatiotemporal properties of spin crossover solids based on a reaction diffusion equation"**,  
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A. Muraoka, K. Boukheddaden,  
**"Modeling of Surface and Size Effects on Various Shape of Spin-Crossover Nanoparticles"**,  
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D. Chiruta, J. Linares, Y. Garcia, M. Dimian, P.-R. Dahoo,

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A. Slimani, K. Boukheddaden, F. Varret, M. Nishino, S. Miyashita,  
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D. Chiruta, J. Linares, M. Dimian, Y. Alayli, Y. Garcia,  
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M. Nishino, T. Nakada, C. Enachescu, K. Boukheddaden, S. Miyashita,  
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M. Itoi, I. Maurin, F. Varret, F.A. Frye, D.R. Talham, D. Chernyshov, K. Boukheddaden,  
**"When local deformations trigger lattice instability: Flow diagram investigations for photoinduced and quenched metastable states in a Prussian blue analog"**,  
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**"Thermal Hysteresis Behavior of Spin Crossover Nanoparticles from a Deformable Lattice Model: Monte Carlo Investigations"**,  
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D. Chiruta, J. Linares, Y. Garcia, P.R. Dahoo, M. Dimian,  
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**"Interplay between spin-crossover and magnetic interactions in a BEG model",**

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**"Static and Dynamical Aspects of a Phonon-Induced Spin-Crossover Transition – Local Equilibrium Approach",**

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**"Microscopic spin-distortion model for switchable molecular solids: Spatiotemporal study of the deformation field and local stress at the thermal spin transition",**

Phys. Rev. B. **87**, 014111 (2013)

A.M. Apetrei, K. Boukheddaden, A. Stancu,

**"Dynamic phase transitions in the one-dimensional spin-phonon coupling model"**,  
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**"Thermally-induced first-order phase transition in the (FC<sub>6</sub>H<sub>4</sub>C<sub>2</sub>H<sub>4</sub>NH<sub>3</sub>)<sub>2</sub>[PbI<sub>4</sub>] photoluminescent organic-inorganic material"**,  
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» Publications 2015-2020

» Publications 2006-2009