



GEMaC

Groupe d'Étude de la Matière Condensée

P2MC – PUBLICATIONS ET THÈSES

Thèses en cours

Mamadou N'diyaye (2019-2022), cotutelle Dakar/UVSQ

"Visualisation et modélisation de la dynamique spatio-temporelle des matériaux à transition de spin"

Nour Belmouri (2021-2024)

"Observation et modélisation spatio-temporelles de transitions de phases du 1er ordre dans les solides moléculaires à transitions de spins photo- et thermo-commutables"

» Thèses soutenues

Publications 2015-2022

2022

K. Affes, Y. Singh, and K. Boukheddaden,

"Electro-Elastic Modeling of Thermal Spin Transition in Diluted Spin-Crossover Single Crystals",

International Journal of Molecular Sciences, vol. 23, no. 22, p. 13854, (2022)

N. di Scala, N. E. I. Belmouri, M. A. P. Espejo, and K. Boukheddaden,

"Three-dimensional electroelastic modeling of the nucleation and propagation of the spin domains in spin-crossover materials",

Phys. Rev. B, vol. 106, no. 1, p. 014422 (2022)

N. di Scala, N. E. I. Belmouri, M. A. P. Espejo, and K. Boukheddaden,

"Explaining the origin of the orientation of the front transformation in spin-transition crystals",

Phys. Rev. B, vol. 106, no. 14, p. 144107 (2022)

H. Fourati, M. Ndiaye, M. Sy, S. Triki, G. Chastanet, S. Pillet, K. Boukheddaden,

"Light-induced thermal hysteresis and high-spin low-spin domain formation evidenced by optical microscopy in a spin-crossover single crystal",

Phys. Rev. B **105**, 174436 (2022)

M. Itoi, I. Maurin, K. Boukheddaden, M. J. Andrus, D. R. Talham, E. Elkaim, Y. Uwatoko,

"Sub-micrometer particle size effects on metastable phases for a photoswitchable Co–Fe Prussian blue analog",

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P. K. Chakraborty, M. Sy, H. Fourati, T. Delgado, M. Dutta, C. Das, C. Besnard, A. Hauser, C. Enachescu, and K. Boukheddaden

"Optical microscopy imaging of the thermally-induced spin transition and isothermal multi-stepped relaxation in a low-spin stabilized spin-crossover material"

Physical Chemistry Chemical Physics , 24(2):982–994, (2022) [HAL]

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S. B. Ogou, T. D. Oke, F. Hontinfinde, and K. Boukheddaden

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G.-M. Rotaru, E. Codjovi, P.-R. Dahoo, I. Maurin, J. Linares, and A. Rotaru

"Monitoring Spin-Crossover Properties by Diffused Reflectivity"

Symmetry, 13 (7):1148, June (2021) [HAL]

I. Maurin, M. Itoi, J. Cain, D. Talham, T. Gacoin, K. Boukheddaden, and J.-P. Itié.

"High-pressure behavior of heteroepitaxial core-shell particles made of Prussian blue analogs."

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M. Ndiaye, N. El Islam Belmouri, J. Linares, and K. Boukheddaden

"Elastic Origin of the Unsymmetrical Thermal Hysteresis in Spin Crossover Materials: Evidence of Symmetry Breaking"

Symmetry, 13(5):828, May (2021) [HAL]

M. Nishino, Y. Singh, K. Boukheddaden, and S. Miyashita

"Tutorial on elastic interaction models for multistep spin-crossover transitions."

Journal of Applied Physics, 130(14) (2021) [HAL]

C. Cazelles, J. Linares, M. Ndiaye, P.-R. Dahoo, et K. Boukheddaden,

"Hexagonal-Shaped Spin Crossover Nanoparticles Studied by Ising-Like Model Solved by Local Mean Field Approximation",

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J. Linares, C. Cazelles, P.-R. Dahoo, et K. Boukheddaden,

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J. Linares, C. Cazelles, P.-R. Dahoo, D. Sohier, T. Dufaud, et K. Boukheddaden,

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A. Slimani et K. Boukheddaden,

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M. Ndiaye, Y. Singh, H. Fourati, M. Sy, B. Lo, et K. Boukheddaden,
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C. Cazelles, Y. Singh, J. Linares, P.-R. Dahoo, et K. Boukheddaden,
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M. Sy , K.. Boukheddaden.
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M. Sharma, A. Yangui, A. Lusson, K. Boukheddaden, X. Ding, M.-H. Du, K. Gofryk, et B. Saparov,
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K. Affes, A. Slimani, Y. Singh, A. Maalej, et K. Boukheddaden,

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H. Fourati et K. Boukheddaden,

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M. Itoi, A. Okazawa, J.-I. Yamaura, S. Maki, T. Komatsu, I. Maurin, E. Codjovi, K.

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