

Curriculum vitae



First name and name Cristian ENĂCHESCU
Date and place of birth: 5th of January 1976, Botoșani, Romania

- **Scientific title** Ph. D in Physics obtained at Universite Versailles Saint Quentin en Yvelines, France, (2003) („très honorable avec les félicitations écrites de jury”) and at Alexandru Ioan Cuza University, Iasi, Romania (2004) (“summa cum laude”)
- Habilitation degree to supervise PhD thesis since April 2013 (5 PhD students)


WoS web page: <https://www.webofscience.com/wos/author/record/B-4903-2008>

Studies

Doctoral studies

- 2000-2003 Ph.D studies at Université de Versailles Saint Quentin en Yvelines, France (“*Contributions to the study of light induced bistability in inorganic photomagnetic solids*”)
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University studies

- 1998-2000 Master studies”*Magnetic and electric properties of thin and ultrathin structures*” at the Faculty of Physics, Alexandru Ioan Cuza University of Iași , Romania
-  1994-1998 Undergraduate studies, Faculty of Physics, Alexandru Ioan Cuza University

Professional experience:

- 2018- Full Professor at the Faculty of Physics, Alexandru Ioan Cuza University
- 2004 – 2018 Assistant professor, lecturer, associate professor at the Faculty of Physics, Alexandru Ioan Cuza University Iași
- 2003-2004 Assistant professor, Department of Physical Chemistry, University of Geneva, Switzerland
- Leader of Spin crossover research group @ CARPATH Excellence Research Center in Faculty of Physics, Alexandru Ioan Cuza University, Iasi

Scientific main results

- **100 ISI papers** (1 Nature Mater., 1 Phys. Rev. Lett., 15 Phys. Rev. B, 1. Adv. Mater, 1 Small, 1. Angew. Chem, 2 Appl. Phys Lett., 6 J. Appl. Phys., 5 Inorg. Chem., 3 J. Phys Condens. Matter, 3 J. Phys Chem B etc.), from which **48 ISI papers** as first or corresponding author
- **4** chapters in books published abroad (Springer, Germania, Wiley Ed. UK)
- **>2800 citations** in ISI journals (average >27 citations/paper, 2200 citations without self-citations)
- **Hirsch Index WOS: 30** (30 papers cited more than 30 times)
- More than **250** communications presented at international conferences (25 invited and 40 oral)

Scientific fields of interest

- Physics of spin crossover compounds.
- Modelling and simulation of physical processes
- Study of hysteresis in magnetic materials

Main teaching activities

Introduction in simulation of discrete events. Monte Carlo method and Ising model.(master, doctoral school). Electricity and magnetism (bachelor) Informational technologies (bachelor), Magnetic materials with technological applications (bachelor), Ethics and academic integrity (bachelor, master)

Research grants won by competition as project director

- Director or Responsible of six national research grants totalizing more than 1 MEuro
- Romanian main investigator for two bilateral Romania-France projects between the spin crossover group @ CARPATH Center and University of Paris-Sud Orsay (2015-2016) and University of Rennes (2017-2018)
- Substitute member of the management committee of FP6 European MAGMAnet Network of Excellence (400.000 euros for the UAIC group)
- Member of the Management Committee of COST action Explicit Control Over Spin states in Technology (2014-2018)
- Substitute member of the Management Committee of COST action Magnetofon (2018-2021) -Ultrafast opto-magneto-electronics for non-dissipative information technology

Prizes

- "Stefan Procopiu" Prize of Romanian Academy (2015)
- Excellence Prize of Romanian National Foundation for Science and Art (under the aegis of Romanian Academy) (2010)

Other activities

- 2020 - present Dean of the Faculty of Physics, Alexandru Ioan Cuza University of Iasi
- 2009 – 2020 Deputy Dean of the Faculty of Physics, Alexandru Ioan Cuza University of Iasi
- 2016 - President and Vicepresident of Physics Commission of Romanian National Council for University Titles and Certificates
- 2011 - 2013 Member of Physics Commission of National Research Council – Romania
- Assessment of scientific projects (CNRC Romania, Agence Universitaire de la Francophonie, NSF Bulgaria, Fondecyt Chile)
- Referee for journals: Phys. Rev. B, Phys Rev. Lett, Eur. Phys. J. B, Appl. Math. Modelling, Physica B, Acc. Chem. Res., J. Phys. Chem. Solids, Inorg. Chem., J. Appl. Phys., Dalton Trans., Chem. Phys., J. Phys. Chem. Lett. etc.
- Invited researcher and professor at University of Tokyo, Japan (2009-2019, two-three weeks yearly), Leeds University, UK, (2013), University of Geneva, Switzerland (2015, 2017), University of Chernivtsi, Ukraine (2015, 2016), University of Rennes, France (2016), University of Toulouse, France (2017), University of Paris Orsay, France (2018), University of Paris Denis Diderot, France(2019)
- Member of commission of doctorate candidate at foreign universities (University of Geneva, University of Paris Sud Orsay, University of Toulouse Paul Sabatier)

Foreign languages:

- English (C1/C2), French (C1/C2), Spanish (B1)

Activity Report

I am a relatively young Romanian senior researcher (47 years old). After finishing my doctoral and postdoctoral studies in France and Switzerland, I returned in Romania, where I worked in the last 15 years, with relevant experience as invited researcher abroad.

My scientific activity was devoted mainly to switching properties of spin crossover compounds. However, most part of my researches surpasses the frame of spin transition field, considering the general description of these materials as two levels switchable systems. The outstanding results of his fundamental research (<https://www.webofscience.com/wos/author/record/B-4903-2008>) reflect both in theoretical (modelling and simulation) as well as in experimental studies of spin crossover systems.

My main theoretical achievements concern the elaboration of an original model for the study of phenomena in spin crossover compounds – now known in literature as the “mechanoelastic model” – which is an original combination of various techniques based on Molecular Dynamic and Monte Carlo methods and which allows complex studies at both microscopic and macroscopic levels, being able to describe systems up to several billions of molecules. The mechanoelastic model largely improved the previous used Ising-like models by taking into account the distortions which appear in real materials due to the molecular volume change during the transition and introducing of a real dynamic of the molecules, thus allowing the propagation of elastic waves. This model surpasses the limitations of both mean-field and Ising models and is able to reproduce various experimental features of the spin crossover complexes: relaxations (either very steep, associated with avalanche and growth phenomena, cooperative relaxation or monoexponential relaxation), photoexcitation, thermal hysteresis, pressure hysteresis, or the role of dopants during the transition. By applying it to open boundaries systems, we were able to predict the clustering and domain formation, which are always starting from edge or corners, as it was experimentally observed. We have to stress here that the mechanoelastic model not only explained known data but also have shown a significant prediction ability for the behaviour of clusters in spin transition compounds. An improved version of the model was devoted to applications

to specific phenomena in spin crossover materials, opening a series of collaboration with chemists and material scientists, with 2-3 papers in high impact factor journals in every year.

Main experimental studies One significant experimental tool I have developed represents the use of the FORC (First Order Reversal Curves) diagram method to the study hysteretic properties of spin-like domains ensembles and to the discovery and analysis of nonlinear effects during the metastable state relaxation and photoexcitation. By using the FORC method, and the common distribution formalism for the thermal, light induced and pressure hysteresis in spin crossover materials, I have shown that the phenomena that influence the photoexcitation and relaxation processes, mainly the existence of a threshold intensity, are directly correlated to the interaction forces inside the spin crossover solid. Using this method for spin crossover micro and nano particles embedded in surfactants, we have uncovered a new type of hysteresis, of mechanical origin, which appears at the nanometric scale of the sample. In other studies, I have also focused on the competition between photoexcitation and relaxation, and between photoexcitation and photo-deexcitation. Together with my collaborators, I have systemized and extended these experiments in several ways: (i) by thoroughly recording the answer of the system as a function of time, starting from various initial states, (ii) by varying light intensities for bulk systems and for microparticulate systems. Beyond the spin crossover research area, I published several papers in other related domains, like the study of ferromagnetic hysteresis, the application of Monte Carlo methods for the study of ferroelectric materials or the theoretical study of FORC distributions .

Considering the number of papers published in the “spin crossover topic” I am classified among the first 20 researchers in the world working in spin transition field, (source: Web of Science Core Collection, topics ”spin crossover” or ”spin transition”, all time). In addition, I have co-authored more than 1% of all time ISI papers in this topic in the world.

Cristian Enăchescu – Paper lists

A. Papers published in ISI journals

- [1] **Author(s)** Andriesei, A; Plesca, D; Capu, R; Stan, RM; Tanasa, R; Enachescu, C
Title: Disentangling between static and kinetic effects in the hysteresis of spin crossover molecular magnets
Source: ROMANIAN REPORTS IN PHYSICS, Volume75, Issue3, Article Number 502, Published 2023
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- [2] **Author(s)** Dutta, M ; Bisht, S; Ghosh, P; Chilug, AI; Mann, D; Enachescu, C; Shatruk, M; Chakraborty, P
Title: Combined Experimental and Mechanoelastic Modeling Studies on the Low-Spin Stabilized Mixed Crystals of 3D Oxalate-Based Coordination Materials
Source: INORGANIC CHEMISTRY, Volume 62, Issue37, Page15050-15062, Published SEP 7 2023
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- [3] **Author(s)** Stoleriu, L; Nishino, M; Miyashita, S; Stancu, A; Bertoni, R; Collet, E; Lorenc, M; Enachescu, C
Title: Multiscale out-of-equilibrium dynamics driven by pulsed laser excitation in spin-crossover materials: A combined thermoelastic and mechanoelastic study
Source: PHYSICAL REVIEW B, Volume: 108, Issue: 1 Article Number: 014306 Published: JUL 21 2023
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- [4] **Author(s)** Ghosh, P; Pask, CM; Vasili, HB; Yoshinari, N; Konno, T; Cespedes, O; Enachescu, C; Chakraborty, P; Halcrow, MA
Title: The effect of inert dopant ions on spin-crossover materials is not simply controlled by chemical pressure
Source: JOURNAL OF MATERIAL CHEMISTRY C, Volume11, Issue37, Page12570-12582, Published: SEP 28 2023
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- [5] **Author(s)** Hu, YW; Picher, M ; Palluel, M; Daro, N; Freysz, E; Stoleriu, L, Enachescu, C; Chastanet, G; Banhart, F
Title: Laser-Driven Transient Phase Oscillations in Individual Spin Crossover Particles
Source: SMALL, Volume 19, 2303701, Published MAY 2023
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- [6] **Author(s)** Das, C; Dey, S; Adak, A; Enachescu, C; Chakraborty, P
Title: Variation of the Cooperativity in Diluted Hofmann-Based Spin-Crossover Coordination Solids $\{Fe_{1-x}M_x(pz)[Pd(CN)_4]\}$
Source: CRYSTAL GROWTH & DESIGN, Volume: 23, Issue: 5 Pages: 3496-3508 Published APR 12 2023
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- [7] **Author(s)** Kelai, M; Tauzin, A; Railean, A; Repain, V; Lagoute, J; Girard, Y; Rousset, S; Otero, E; Mallah, T; Boillot, ML; Enachescu, C; Bellec, A
Title: Interface versus Bulk Light-Induced Switching in Spin-Crossover Molecular Ultrathin Films Adsorbed on a Metallic Surface
Source: JOURNAL OF PHYSICAL CHEMISTRY LETTERS, Volume: 14, Issue: 7 Pages: 1949-11954 Published FEB 14 2023
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- [8] **Author(s)** Railean, A; Kelai, M; Bellec, A; Repain, V; Boillot, ML; Mallah, T; Stoleriu, L; Enachescu, C;
Title: Mechanoelastic simulations of monolayer lattices of spin crossover molecules on a substrate
Source: PHYSICAL REVIEW B, Volume: 107, Issue: 1 Article Number: 014304 Published: JAN 11 2023
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- [9] **Author(s)** Volte, A; Mariette, C; Bertoni, R; Cammarata, M; Dong, X; Trzop, E; Cailleau, H; Collet, E; Levantino, M; Wulff, M; Kubicki, J; Yang, FL; Boillot, ML; Corraze, B; Stoleriu, L; Enachescu, C; Lorenc, M
Title: Dynamical limits for the molecular switching in a photoexcited material revealed by X-ray diffraction
Source: COMMUNICATIONS PHYSICS, Volume: 5, Issue: 1 Article Number: 168 Published JUN 29 2022
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- [10] **Author(s)** Ati, M ; Enachescu, C ; Bouamrane, R
Title: Molecular Dynamics Study of Oscillators Spin Chain in Framework of Variable Interaction Range Model
Source: ACTA PHYSICA POLONICA A, Volume: 141, Issue: 3 Pages: 191-197 Published MAR 2022
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- [11] **Author(s)** Chakraborty, P; Sy, M; Fourati, H; Delgado, T; Dutta, M; Das, C; Besnard, C; Hauser, A; Enachescu, C; Boukheddaden, K
Title: Optical microscopy imaging of the thermally-induced spin transition and isothermal multi-stepped relaxation in a low-spin stabilized spin-crossover material
Source: PHYSICAL CHEMISTRY CHEMICAL PHYSICS, Volume: 24, Issue: 2 Pages: 982-994 Published JAN 4 2022
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- [12] **Author(s)** Tong, Y; Kelai, M; Bairagi, K.; Repain, V; Lagoute J; Girard, Y; Rousset, S; Boillot, ML; Mallah, T; Enachescu, C; Bellec, A
Title: Voltage-Induced Bistability of Single Spin-Crossover Molecules in a Two-Dimensional Monolayer
Source: JOURNAL OF PHYSICAL CHEMISTRY LETTERS, Volume: 12, Issue: 45 Pages: 11029-11034 Published NOV 7 2021
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- [13] **Author(s)** Hu, YW; Picher, M; Tran, NM; Palluel, M; Stoleriu, L; Daro, N; Mornet, S; Enachescu, C; Freysz, E; Banhart, F; Chastanet, G
Title: Photo-Thermal Switching of Individual Plasmonically Activated Spin Crossover Nanoparticle Imaged by Ultrafast Transmission Electron Microscopy
Source: ADVANCED MATERIALS, Article number 2105586 Published OCT2021
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- [14] **Author(s)** Kelai, M; Repain, V; Tauzin, A; Li, WB; Girard, Y; Lagoute, J; Rousset, S; Otero, E; Saintavit, P; Arrio, MA; Boillot, ML; Mallah, T; Enachescu, C; Bellec, A
Title: Thermal Bistability of an Ultrathin Film of Iron(II) Spin-Crossover Molecules Directly Adsorbed on a Metal Surface
Source: JOURNAL OF PHYSICAL CHEMISTRY LETTERS, Volume: 12, Issue: 26 Pages: 6152-6158 Published JUL 8 2021
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- [15] **Author(s)** Plesca, D; Railean, A; Tanasa, R; Stancu, A; Laisney, J; Boillot, ML; Enachescu, C
Title: Unexpected Light-Induced Thermal Hysteresis in Matrix Embedded Low Cooperative Spin Crossover Microparticles
Source: MAGNETOCHEMISTRY, Volume: 7, Issue:5 Article Number: 59 Published MAY 2021
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- [16] **Author(s)** Popa, AI; Stoleriu, L; Enachescu, C;

Title: Tutorial on the elastic theory of spin crossover materials
Source: JOURNAL OF APPLIED PHYSICS, Volume: 129, Issue: 13 Pages: 131101-1-131101-24, Published APR 7 2021

[17] **Author(s)** Laisney, J; Morineau, D, Enachescu, C; Tanasa, R; Riviere, E; Guillot, R; Boillot, ML
Title: Mechanical-tuning of the cooperativity of SC particles via the matrix crystallization and related size effects
Source: JOURNAL OF MATERIALS CHEMISTRY, Volume: 8, Issue: 21 Pages: 7067-7078 Published JUN 7 2020

[18] **Author(s)** Nishino, M; Enachescu, C; Miyashita, S,
Title: Multistep spin-crossover transitions induced by the interplay between short- and long-range interactions with frustration on a triangular lattice
Source: PHYSICAL REVIEW B, Volume: 100, Issue: 13 Article Number: 134414 Published: OCT 10 2019

[19] **Author(s):** Fourmental, C ; Mondal, S ; Banerjee, R ; Bellec, A ; Garreau, Y ; Coati, A ; Chacon, C ; Girard, Y ; Lagoute, J ; Rousset, S ; Boillot, ML ; Mallah, T ; Enachescu, C ; Barreateau, C ; Dappe, YJ ; Smogunov, A ; Narasimhan, S ; Repain, V
Title: Importance of Epitaxial Strain at a Spin-Crossover Molecule-Metal Interface
Source: JOURNAL OF PHYSICAL CHEMISTRY LETTERS, Volume: 10, Issue: 14, Pages: 4103-4109, 10.1021/acs.jpcclett.9b01303. JUL 18 2019

[20] **Author(s):** Tanasa, R; Enachescu, C; Laisney, J; Morineau, D; Stancu, A; Boillot, ML
Title: Unraveling the Environment Influence in Bistable Spin-Crossover Particles Using Magnetometric and Calorimetric First-Order Reverse Curves
Source: JOURNAL OF PHYSICAL CHEMISTRY C, Volume: 123, Issue: 15, Pages: 10120-10129, 10.1021/acs.jpcc.9b00768, APR 18 2019

[21] **Author(s):** Bertoni, R; Collet, E; Cailleau, H; Boillot, ML; Tissot, A; Laisney, J; Enachescu, C; Lorenc, M
Title: Temperature dependence of the cooperative out-of-equilibrium elastic switching in a spin-crossover material
Source: PHYSICAL CHEMISTRY CHEMICAL PHYSICS, Volume: 21, Issue: 12, Pages: 6606-6612, 10.1039/c8cp07074a, MAR 28, 2019

[22] **Author(s):** Stoleriu, L; Enachescu, C
Title: Elastic model for spin crossover nanoparticles in matrices
Source: PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE Volume: 20 Issue: 1 Pages: 59-66 Published: JAN-MAR 2019

[23] **Author(s):** Delgado, T; Enachescu, C; Tissot, A; Hauser, A; Guenee, L; Besnard, C
Title: Evidencing size-dependent cooperative effects on spin crossover nanoparticles following their HS-LS relaxation
Source: JOURNAL OF MATERIALS CHEMISTRY C, Volume: 6, Issue: 46, Pages: 12698-12706, 10.1039/c8tc04315a. DEC 14 2018

[24] **Author(s):** Enachescu, C; Nicolazzi, W
Title: Elastic models, lattice dynamics and finite size effects in molecular spin crossover systems
Source: COMPTES RENDUS CHIMIE, Volume: 21, Issue: 12, Pages: 10.1016/j.crci.2018.02.004, DEC 2018

[25] **Author(s):** Delgado, T; Enachescu, C; Tissot, A; Guenee, L; Hauser, A; Besnard, C
Title: The influence of the sample dispersion on a solid surface in the thermal spin transition of [Fe(pz)Pt(CN)₄] nanoparticles
Source: PHYSICAL CHEMISTRY CHEMICAL PHYSICS, Volume: 20, Issue: 18, Pages: 12493-12502, 10.1039/c8cp00775f, MAY 14, 2018

[26] **Author(s):** Stoleriu, L; Nishino, M; Miyashita, S, Stancu, A; Hauser, A.; Enachescu, C
Title: Cluster evolution in molecular three-dimensional spin-crossover systems
Source: PHYSICAL REVIEW B, Volume: 96, Issue: 6, Article Number: 064105, 10.1103/PhysRevB.96.064115; AUG 24 2017

[27] **Author(s):** Gaina, R.,; Enachescu, C;
Title: Nucleation in spin transition molecular magnets: a parallel between Ising-like and mechanoelastic models
Source: PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE Volume: 18 Issue: 3 Pages: 215-222 Published: JUL-SEP 2017

[28] **Author(s):** Ati, M.; Enachescu, C; Boumarane, R.;;
Title: Langevin dynamics simulation of a one-dimensional linear spin chain with long-range interactions
Source: EUROPEAN PHYSICAL JOURNAL B Volume: 90 Issue: 7 Article Number: 133 Published: JUL 12 2017

[29] **Author(s):** Enachescu, C ; Stoleriu, L; Nishino, M; Miyashita, S, Stancu, A; Lorenc, M; Bertoni, R; Cailleau, H, Collet, E
Title: Theoretical approach for elastically driven cooperative switching of spin-crossover compounds impacted by an ultrashort laser pulse
Source: PHYSICAL REVIEW B, Volume: 95, Issue: 22, Article Number: 224107, DOI: 10.1103/PhysRevB.95.224107, JUN 29 2017

[30] **Author(s):** Enachescu, C.; Hauser, A.
Title: Study of switching in spin transition compounds within the mechanoelastic model with realistic parameters
Source: PHYSICAL CHEMISTRY CHEMICAL PHYSICS, Volume: 18, Issue: 30, Pages: 20591-20599, DOI: 10.1039/c6cp02806c, AUG 14 2016

[31] **Author(s):** Enachescu, C; Tanasa, R; Stancu, A; Tissot, A; Laisney, J; Boillot, ML
Title: Matrix-assisted relaxation in Fe(phen)₂(NCS)₂ spin-crossover microparticles, experimental and theoretical investigations
Source: APPLIED PHYSICS LETTERS, Volume: 109, Issue: 3, Article Number: 031908, DOI: 10.1063/1.4959262, JUL 18 2016

[32] **Author(s):** Bertoni, R; Lorenc, M; Cailleau, H; Tissot, A; Laisney, J; Boillot, ML; Stoleriu, L; Stancu, A; Enachescu, C; Collet, E
Title: Elastically driven cooperative response of a molecular material impacted by a laser pulse

Source: NATURE MATERIALS, Volume: 15, Pages: 606, DOI: 10.1038/NMAT4606, JUN 2016

[33] **Author(s):** Atitoaie, A; Stoleriu, L ; Tanasa, R; Stancu, A; Enachescu, C

Title: Thermal hysteresis kinetic effects of spin crossover nanoparticulated systems studied by FORC diagram method on an Ising-like model

Source: PHYSICA B-CONDENSED MATTER, Volume: 486, Pages: 138-141, DOI: 10.1016/j.physb.2015.08.035, APR 1 2016

[34] **Author(s):** Stan, RM, Gaina, R; Enachescu, C; Tanasa, R; Stancu, A; Bronisz, R

Title: Kinetic effects on double hysteresis in spin crossover molecular magnets analyzed with first order reversal curve diagram technique

Source: JOURNAL OF APPLIED PHYSICS, Volume: 117, Issue: 17, Article Number: 17B323, DOI: 10.1063/1.4918961, Published: MAY 7 2015

[35] **Author(s):** Stoleriu, L; Stancu, A; Chakraborty, P; Hauser, A; Enachescu, C

Title: Analysis of first order reversal curves in the thermal hysteresis of spin-crossover nanoparticles within the mechanoelastic model

Source: JOURNAL OF APPLIED PHYSICS, Volume: 117, Issue: 17, Article Number: 17B307, DOI: 10.1063/1.4914953, Published: MAY 7 2015

[36] **Author(s):** Enachescu, C; Nishino, M; Miyashita, S; Boukheddaden, K; Varret, F; Rikvold, PA

Title: Shape effects on the cluster spreading process of spin-crossover compounds analyzed within an elastic model with Eden and Kawasaki dynamics

Source: PHYSICAL REVIEW B, Volume: 91, Issue: 10, Article Number: 104102, DOI: 10.1103/PhysRevB.91.104102, Published: MAR 3 2015

[37] **Author(s):** Chakraborty, P; Enachescu, C; Humair, A; Egger, L; Delgado, T; Tissot, A; Guenee, L; Besnard, C; Bronisz, R; Hauser, A

Title: Light-induced spin-state switching in the mixed crystal series of the 2D coordination network $\{[Zn_{1-x}Fe_x(bbtr)_3](BF_4)_2\}$ (infinity): optical spectroscopy and cooperative effects

Source: DALTON TRANSACTIONS Volume: 43 Issue: 47 Pages: 17786-17796 Published: 2014

[38] **Author(s):** Atitoaie, A; Tanasa, R; Stancu, A; Enachescu C

Title: Study of spin crossover nanoparticles thermal hysteresis using FORC diagrams on an Ising-like model

Source: JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS Volume: 368, Pages: 12-18 DOI: 10.1016/j.jmmm.2014.04.054 Published: NOV 2014

[39] **Author(s):** Gudyma, Y; Maksimov, A; Enachescu, C

Title: Phase transition in spin-crossover compounds in the breathing crystal field model

Source: PHYSICAL REVIEW B: 89, 224412: 10.1103/PhysRevB.89.224412, JUN 23 2014

[40] **Author(s):** Tanasa, R, Laisney, J, Stancu, A, Boillot, ML, Enachescu, C

Title: Hysteretic behavior of Fe(phen)(2)(NCS)(2) spin-transition microparticles vs. the environment: A huge reversible component resolved by first order reversal curves

Source: APPLIED PHYSICS LETTERS: 104, 3, 031909: 10.1063/1.4862748, JAN 20 2014

[41] **Author(s):** Nishino, M; Nakada, T; Enachescu, C; Boukheddaden, K; Miyashita, S

Title: Crossover of the roughness exponent for interface growth in systems with long-range interactions due to lattice distortion

Source: PHYSICAL REVIEW B: 88, 9, 094303: 10.1103/PhysRevB.88.094303, SEP 16 2013

[42] **Author(s):** Chakraborty, P; Pillet, S; Bendeif, EE; Enachescu, C; Bronisz, R; Hauser, A

Title: Light-Induced Bistability in the 2D Coordination Network $\{[Fe(bbtr)(3)][BF_4](2)\}_\infty$: Wavelength-Selective Addressing of Molecular Spin States

Source: CHEMISTRY-A EUROPEAN JOURNAL, 19 (34), 11418-11428, 10.1002/chem.201301257, AUG 19 2013

[43] **Author(s):** Chakraborty, P; Enachescu, C; Hauser, A

Title: Analysis of the Experimental Data for Pure and Diluted $[Fe_xZn_{1-x}(bbtr)(3)](ClO_4)_2$ Spin-Crossover Solids in the Framework of a Mechanoelastic Model

Source: EUROPEAN JOURNAL OF INORGANIC CHEMISTRY, 5-6, 770-780, FEB 2013

[44] **Author(s):** Chakraborty, P; Enachescu, C; Walder, C; Bronisz, R; Hauser, A

Title: Thermal and Light-Induced Spin Switching Dynamics in the 2D Coordination Network of $\{[Zn_{1-x}Fe_x(bbtr)_3](ClO_4)_2\}_\infty$: The Role of Cooperative Effects

Source: INORGANIC CHEMISTRY, 51 (18):9714-9722; 10.1021/ic301006c SEP 17 2012

[45] **Author(s):** Tissot, A; Enachescu, C; Boillot, ML

Title: Control of the thermal hysteresis of the prototypal spin-transition FeII(phen)2(NCS)2 compound via the microcrystallites environment: experiments and mechanoelastic model

Source: JOURNAL OF MATERIALS CHEMISTRY, 22 (38):20451-20457; 10.1039/c2jm33865c 2012

[46] **Author(s):** Enachescu, C; Nishino, M; Miyashita, S; Stoleriu, L; Stancu, A

Title: Monte Carlo Metropolis study of cluster evolution in spin-crossover solids within the framework of a mechanoelastic model

Source: PHYSICAL REVIEW B, 86 (5):10.1103/PhysRevB.86.054114 AUG 20 2012

[47] **Author(s):** Atitoaie A; Tanasa R; Enachescu C

Title: Size dependent thermal hysteresis in spin crossover nanoparticles reflected within a Monte Carlo based Ising-like model

Source: JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS Volume: 324 Issue: 8 Pages: 1596-1600 DOI: 10.1016/j.jmmm.2011.12.011

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- [48] **Author(s):** Ferbinteanu M; Cimpoesu F; Girtu M.; Enachescu C; Tanase S
Title: Structure and Magnetism in Fe-Gd Based Dinuclear and Chain Systems. The Interplay of Weak Exchange Coupling and Zero Field Splitting Effects
Source: INORGANIC CHEMISTRY Volume: 51 Issue: 1 Pages: 40-50 DOI: 10.1021/ic1023289 Published: JAN 2 2012
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- [49] **Author(s):** Nishino, M; Enachescu, C; Miyashita, S, Rikvold, P.A.; Boukheddaden, K., Varret, F
Title: Macroscopic nucleation phenomena in continuum media with long-range interactions
Source: SCIENTIFIC REPORTS 1 : 162 DOI: 10.1038/srep00162 , 2011
-
- [50] **Author(s):** Stoleriu, L; Chakraborty, P; Hauser, A; Stancu, A; Enachescu, C
Title: Thermal hysteresis in spin-crossover compounds studied within the mechanoelastic model and its potential application to nanoparticles
Source: PHYSICAL REVIEW B 84 (13): 10.1103/PhysRevB.84.134102 OCT 11 2011
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- [51] **Author(s):** Padurariu L; Enachescu C; Mitoseriu L
Title: Monte Carlo simulations for describing the ferroelectric-relaxor crossover in BaTiO(3)-based solid solutions
Source: JOURNAL OF PHYSICS-CONDENSED MATTER Volume: 23 Issue: 32 Article Number: 325901, AUG 17 2011
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