

CURRICULUM VITAE



DATE PERSONALE

Nume	Aurelian ROTARU
Adresă	
Telefon	+40 230 524 801
Fax	+40 230 524 801
E-mail	rotaru@eed.usv.ro / aurelian.rotaru@usm.ro
Web	http://nanomat.usv.ro http://eed.usv.ro/~rotaru

Naționalitatea	Română
Data și locul nașterii	17.06.1982
Starea civilă	Căsătorit

STUDII UNIVERSITARE

• Perioada	2000-2004
• Instituția de învățământ	Facultatea de Fizică, Universitatea "Alexandru Ioan Cuza", Iași
• Specializarea	Fizică Medicală
• Titlul obținut la absolvire	Licențiat în Fizică medicală

MASTERAT

• Perioada	2004-2006
• Instituția de învățământ	Facultatea de Fizică, Universitatea "Alexandru Ioan Cuza", Iași
• Domeniul	Fizica corpului solid
• Denumirea programului de studii	Proprietăți electrice și magnetice ale particulelor fine și ultra fine

DOCTORAT

• Instituția de învățământ coordonatoare	Universitatea "Alexandru Ioan Cuza", Iași
• Domeniul de doctorat	Magnetism molecular
• Titlul tezei de doctorat	Studiul teoretic și experimental al efectului presiunii asupra compușilor bistabili: comportament termic și studiul relaxării
• Anul susținerii tezei	2009
• Titlul obținut la absolvire	Doctor în Fizică

ALTE STUDII / STAGII DE PREGĂTIRE

• Perioada	2009-2010
• Instituția	Advanced Materials Research Institute, New Orleans, Louisiana, USA
• Denumirea programului de studii	Studii postdoctorale

ACTIVITATEA PROFESIONALĂ

• Perioada	2007-2008
• Locul de muncă	Universitatea din Versailles și Saint Quentin en Yvelines, Versailles, Franța
• Domeniul de activitate	Educație și cercetare
• Funcția	Cadru didactic asociat (Vacataire)

• Principalele activități și responsabilități	Activități didactice și de cercetare
• Domenii de competență	Fizică computațională

• Perioada	2008-2009
• Locul de muncă	Universitatea din Versailles și Saint Quentin en Yvelines, Versailles, Franța
• Domeniul de activitate	Educație și cercetare
• Funcția	Cadru didactic asociat (ATER)
• Principalele activități și responsabilități	Activități didactice și de cercetare
• Domenii de competență	Fizică computațională, Magnetostatică și Electrostatică

• Perioada	2011-2015
• Locul de muncă	Laboratorul de Materiale Avansate și Nanotehnologii (AMNOL), Universitatea „Ștefan cel Mare” din Suceava
• Domeniul de activitate	Cercetare
• Funcția	Responsabil Laborator
• Principalele activități și responsabilități	Activități de cercetare
• Domenii de competență	Nanoelectronică, Nanotehnologii, Materiale avansate multifuncționale.

• Perioada	2015-prezent
• Locul de muncă	Laboratorul de Materiale Avansate Multifuncționale (NANOMAT), Centrul de Cercetare MANSiD, Universitatea „Ștefan cel Mare” din Suceava
• Domeniul de activitate	Cercetare
• Funcția	Responsabil Laborator
• Principalele activități și responsabilități	Activități de cercetare
• Domenii de competență	Nanoelectronică, Nanotehnologii, Materiale avansate multifuncționale.

ACTIVITATEA DIDACTICĂ ÎN ÎNVĂȚĂMÂNTUL SUPERIOR

• Perioada	2010 – 2011	
• Locul de muncă	Facultatea de Inginerie Electrică și Știința Calculatoarelor, Universitatea “Ștefan cel Mare” , Suceava	
• Gradul didactic	Lector universitar	
• Principalele activități și responsabilități	• cursuri susținute:	Fizică I, Fizică II
	• seminarii și laboratoare:	Fizică I, Fizică II

• Perioada	Octombrie 2011 – prezent	
• Locul de muncă	Facultatea de Inginerie Electrică și Știința Calculatoarelor, Universitatea “Ștefan cel Mare” , Suceava	
• Gradul didactic	Conferențiar universitar	
• Principalele activități și responsabilități	• cursuri susținute:	Fizică I, Fizică II, Introducere în Nanoelectronică
	• seminarii și laboratoare:	Fizică I, Fizică II, Introducere în Nanoelectronică

ACTIVITATEA ȘTIINȚIFICĂ

PUBLICAȚII	Vezi anexe.
PROIECTE DE CERCETARE	Vezi anexe.

PARTICIPĂRI LA CONFERINȚE NAȚIONALE ȘI INTERNAȚIONALE REPREZENTATIVE

Vezi anexe.

LIMBI STRĂINE

1. Franceză
2. Engleză

Înțelegere				Vorbire				Scriere	
Ascultare		Citire		Conversație		Discurs oral			
1	C2	1	C2		C1		C1		C1
2	C1	2	C1		C1		C1		C1

ANEXE

I. Vizite/Stagii de cercetare

2020 - Cercetător invitat la UkrOrgSyntez Ltd. , Kiev, Ukraine (**2 luni**)

2019 – Cercetător invitat la Coordination Chemistry Laboratory (LCC), Toulouse, France (**2 săptămâni**)

2019 - Cercetător invitat la UkrOrgSyntez Ltd. , Kiev, Ukraine (**2 luni**)

2018 - Cercetător invitat la UkrOrgSyntez Ltd. , Kiev, Ukraine (**2 luni**)

2017 - Cercetător invitat la UkrOrgSyntez Ltd., Kiev, Ukraine (**2 luni**)

2016 - Cercetător invitat la Coordination Chemistry Laboratory (LCC), Toulouse, France (**1 luna**)

2015 - Cercetător invitat la Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**1 săptămână**)

2015 – Cercetător invitat la Coordination Chemistry Laboratory (LCC), Toulouse, France (**1 săptămână**)

2014 - Cercetător invitat la Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**2 săptămâni**)

2013 – Cercetător invitat la Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**2 săptămâni**)

2012 – Cercetător invitat la Coordination Chemistry Laboratory (LCC), Toulouse, France (**1.5 luni**)

2012 – Cercetător invitat la at Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**2 săptămâni**)

2011 – Cercetător invitat la Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**1 săptămână**)

II. PROIECTE DE CERCETARE

- Grant PN-III-P1-1.1-TE-2019-2194 (*Proiecte de cercetare pentru stimularea tinerelor echipe independente - TE*) – „Dispozitive nanoelectronice inteligente pe bază de materiale moleculare comutabile – SmartDevice”. (2020 - 2022), Contract Nr. Te 123 / 2020. (**Coordinator: Aurelian Rotaru**)
- Grant PN-III-P4-ID-PCCF-2016-0175 – „High-k Nanoparticle Multilayer Dielectrics for Nanoelectronics and Energy Storage Applications – HIGHkDEVICE”, Nr. Contract: PCCF18/2018, 2018-2022, Buget Proiect : 8.500.000 Ron, (**Coordinator: Aurelian Rotaru** – Universitatea „Ștefan cel Mare” din Suceava; **Partner 1: Liliana Mitoșeriu** - Universitatea „Alexandru Ioan Cuza”, Iasi; **Partner 2: Ioana Pintilie** - Institutul National de Cercetare Dezvoltare pentru Fizica Materialelor; **Partner 3: Aurelian Marcu** - Institutul National de Cercetare Dezvoltare pentru Fizica Laserilor, Plasmei si Radiatiei.

- H2020-MSCA-RISE-2016, Project No. 734322 - “Multifunctional Spin Crossover Materials –SPINSWITCH”, 2017-2020, **954.000,00 €** (**Coordinator: Aurelian Rotaru**)
- Grant PN II-TE (Young researcher grant) – CNCSIS „Analysis of Spin State Commutation in Spin Crossover based Switchable Devices” (2015-2017) – **550.000 RON (~ 125.000 Eur)** - (PI: Aurelian Rotaru)
- POS CCE Grant (Infrastructure Grant) – ANCSI-MFE (co-funded from European Regional Development Fund) – **31.460.699 RON (~ 7.070.000,00 €)** – “Integrated Center for Research, Development and Innovation in Advanced Materials, Nanotechnology, and Distributed Systems for fabrication and control” – MANSiD (April 2015 – December 2015), Contract No 671 / 09.04.2015 (**Management Team: Prof. Adrian Graur, Prof. Mihai Dimian, Prof. Dumitru Amarandei, Prof. Constantin Filote and Assoc. prof. Aurelian Rotaru (contact person)**)
- PCCA Grant (Partnership Grant) – UEFISCDI – “Flexible White OLED for Lighting Applications -FlexWOL” (2014-2016) – **275 000 RON (~62 500 €)** (**Coordinator - Dr. Luminita Marin, Institute of Macromolecular Chemistry “Petru Poni” Iasi, Partner 1 - Dr. Aurelian Rotaru - Stefan cel Mare University of Suceava, Partner 2 - Bogdan Chiricuta - APEL LASER SRL:**).
- Bilateral Grant Romania-France (UEFISCDI-ANR) – „Switchable molecules for nanoelectronics and spintronics – SwitchElec” – (2013-2016) (**PI: Aurelian Rotaru (Rou) and Azzedine Bousseksou (Fr)**).
- Bilateral Grant Romania-Belgium (UEFISCDI-WBI) –, „Thermal- and piezo-switchable molecular sensors based on alpha and beta-amino acids”(2012-2014) (**PI: Aurelian Rotaru (Rou) and Yann Garcia (Be)**)
- Grant PN II-TE (Young researcher grant) – CNCSIS „Analysis of cooperativity and low dimensionality effects in bistable molecular systems with applications in nanoelectronics” (2012-2015) - (**PI: Aurelian Rotaru**)
- Grant BD – CNCSIS (Doctoral grant), (2007-2009) - (**PI: Aurelian Rotaru**).

III. Publicații:

Capitole de carte:

- [1] M. Dimian, **A. Rotaru**, Chapter: “Molecular magnetism modeling with applications in spin crossover compounds”, in the book: **Magnetic Materials, InTech** (2016), ISBN 978-953-51-2427-6

Articole ISI:

Number of peer-reviewed papers: 83

Number of citations (without self-citations): > 2000

h-index: 24 (conform WoK și Scopus) și 29 (conform Google Scholar)

2021

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- [83] I. Rusu, I. C. Manolache-Rusu, A. Diaconu, O. Palamarciuc, I. A. Gural'skiy^{4,5}, G. Molnar, **A. Rotaru**, “Pressure Gradient Effect on Spin-Crossover Materials: Experiment vs. Theory”, *J. Appl. Phys.*, **129** (2021) 064501 (**Featured article**) (**Q2**)
- [82] D. Maskowicz, M. Sawczak, A. C Ghosh, K. Grochowska, R. Jendrzewski, **A. Rotaru**, Y. Garcia, G. Śliwiński, “Spin crossover and cooperativity in nanocrystalline

2020

- [81] V. Y. Sirenko, O. I. Kucheriv, **A. Rotaru**, I. O. Fritsky, and I. A. Gural'skiy *Direct Synthesis of Spin-Crossover Complexes: a New Iron-Triazolic Structure Unexpectedly Revealed*, *Eur. J. Inorg. Chem.*, **Eur. J. Inorg. Chem.**, **48** (2020), 4523-4531 (Q2)
- [80] P. Pascariu, N. Olaru, **A. Rotaru**, A. Airinei, *Innovative Low-Cost Carbon/ZnO Hybrid Materials with Enhanced Photocatalytic Activity towards Organic Pollutant Dyes' Removal*, *Nanomaterials*, **10** (2020) 1873. (Q2)
- [79] A.-C. Gheorghe, Y. Bibik, O. I. Kucheriv, D. D. Barakhtii, M.-V. Boicu, I. Rusu, A. Diaconu, I. A. Gural'skiy, G. Molnár, **A. Rotaru**, *Anomalous Pressure Effects on the Electrical Conductivity of the Spin Crossover Complex [Fe(pyrazine){Au(CN)₂}₂]*, *Magnetochemistry*, **6** (2020) 31 (Q2)
- [78] V Kumar, M. El-Massaoudi, S. Radi, K. Van Hecke, **A. Rotaru**, Y. Garcia, *Iron(II) coordination pyrazole complexes with aromatic sulfonate ligands: the role of ether*, *New Journal of Chemistry*, **44** (2020), 13902-13912 (Q2)
- [77] V. M. Hiiuk, S. Shova, **A. Rotaru**, A. A. Golub, I. O. Fritsky, and I. A. Gural'skiy, *Spin crossover in 2D Iron(II) Phthalazine Cyanometallic Complexes*, *Dalton Transactions*, **49** (2020) 5302-5311 (Q1)
- [76] A. Abrishamkar, S. Suárez-García, S. Sevim, A. Sorrenti, R. Pons, S.-X. Liu, S. Decurtins, G. Aromí, D. Aguilà, S. Pané, A. J. deMello, **A. Rotaru**, D. Ruiz-Molina, J. Puigmartí-Luis, *Pathway Selection as a Tool for Crystal Defect Engineering: a Case Study with a Functional Coordination Polymer*, *Appl. Mater. Today*, **20** (2020) 100632 (Q1)
- [75] I. Soroceanu, S.-L. Lupu, I. Rusu, M. Piedrahita-Bello, L. Salmon, G. Molnár, P. Demont, A. Bousseksou and **A. Rotaru**, *Ligand Substitution Effects on the Charge Transport Properties of the Spin Crossover Complex [Fe(Htrz)_{1+y-x}(trz)_{2-y}(NH₂trz)_x](BF₄)_y•nH₂O*, *J. Phys.: Condens. Matter*, **32** (2020) 264002 (Q2)
- [74] Y. Zhang, K. Ridier, V. Shalabaeva, M. Piedrahita-Bello, **A. Rotaru**, L. Salmon, G. Molnár, I. Séguy, A. Bousseksou, *Resistance Switching in Large-Area Vertical Junctions of the Molecular Spin Crossover Complex [Fe(HB(tz)₃)₂]: ON/OFF Ratios and Device Stability*, *J. Phys.: Condens. Matter*, **32** (2020) 214010 (Q2)
- [73] D. Caruntu, B. Kavey, S. Paul, A.-C. Bas, **A. Rotaru** and G. Caruntu, *Dielectric Properties of Solution-Processed BaTiO₃-Styrene Butadiene Styrene Nanocomposite Films*, *CrystEngComm*, **22** (2020), 1261-1272 (Q1)
- [72] N. Varastegani, A. Yourdkhani, S. A. S. Ebrahimi, **A. Rotaru**, *Varistor and Electrical Properties of MgO (Fe₂O₃)_{1-x}(Bi₂O₃)_x Ceramics*, *J. Eur. Ceram. Soc.*, **40** (2020) 1325-1329 (Q1)

2019

- [71] N. Varastegani, A. Yourdkhani, S. A. S. Ebrahimi, **A. Rotaru**, *Varistor and Electrical Properties of MgO (Fe₂O₃)_{1-x}(Bi₂O₃)_x Ceramics*, *J. Eur. Ceram. Soc.* 2019 (in press) <https://www.sciencedirect.com/science/article/pii/S0955221919308404> (Q1)
- [70] I. Soroceanu, A. Graur, E. Coca, L. Salmon, G. Molnar, P. Demont, A. Bousseksou, **A. Rotaru***, *Broadband Dielectric Spectroscopy Reveals Peak Values of Conductivity and Permittivity Switching upon Spin Crossover*, *J. Phys. Chem. Lett*, **10** (2019) 7391 (Q1)

- [69] D. Popovici, A. Diaconu, **A. Rotaru**, L. Marin, *Microwave-assisted FeCl₃-synthesis of alternantpolyfluorene-oxadiazole. Synthesis, properties and white light-emitting devices*, **Polymers**, **11** (2019) 1562 (Q1)
- [68] S. Xue, A. Rotaru, Y. Garcia, *Ligand field strength tuning in the model [Fe(H₂Bpz₂)₂(bipy)] spin crossover complex*, **Hyperfine Interactions**, **240** (2019) 1-5.
- [67] V. M. Hiiuk, S. Shova, **A. Rotaru**, V. Ksenofontov, I. O. Fritsky, and I. A. Gural'skiy *Room Temperature Hysteretic Spin Crossover in a New Cyanoheterometallic Framework*, **Chem.Comm.**, **55** (2019) 3359-3362 (Q1)
- [66] A. Ivanova-Tolpintseva, O. Tynkevych, A. Diaconu, **A. Rotaru**, and Y.Khalavka, *Synthesis and light-induced aggregation of benzoate-stabilized silver nanoparticles*, **Applied Nanoscience**, **9** (2019) 709-714 (Q2)

2018

- [65] P. Pascariu, M. Asanduleasa, A. Airinei, **A. Rotaru**, *Insights into the optical, magnetic and dielectric properties of some novel polysulfone/NiFe₂O₄ composite materials*, **Polymer International**, **67** (2018) 1313-1324 (Q2)
- [64] T. Costanzo, J. McCracken, **A. Rotaru** and G. Caruntu, *Quasi-Monodisperse Transition Metal-Doped BaTiO₃ (M=Cr,Mn, Fe, Co) Colloidal Nanocrystals with Multiferroic Properties*, **ACS Applied Nano Materials**, **1** (2018) 4863-4874
- [63] H. Benaissa, **A. Rotaru**, Y. Garcia *Spin crossover in 1D Fe(II) polymers with 1,2,4-triazole thiourea building blocks*, **Hyperfine Interactions**, **2018**, 239:37
- [62] A. B. Gaspar, G. Molnár, **A. Rotaru**, H. J. Shepherd, *Pressure effect investigations on spin crossover coordination compounds*, **Comptes Rendus Chimie**, **21** (2018) 1095-1120 (Q3)
- [61] S. Xue, Y. Guo, **A. Rotaru**, H. Müller-Bunz, G. Morgan, E. Trzop, E. Collet, J. Olah, Y. Garcia, *Spin crossover behaviour in a homologous series of iron(II) complexes based on functionalized-bipyridyl ligands*, **Inorganic Chemistry**, **57** (2018), 9880-9891 (Q1)
- [60] N. Fifer, A. Airinei, D. Timpu, **A. Rotaru**, L. Sacarescu, L. Ursu, *New insights into structural and magnetic properties of Ce doped ZnO nanoparticles*, **Journal of Alloys and Compounds**, **757** (2018) 60–69 (Q1)
- [59] P. Pascariu Dorneanu, C. Cojocaru, P. Samoila, N. Olaru, A. Airinei, **A. Rotaru**, *Novel fibrous composites based on electrospun PSF and PVDF ultrathin fibers reinforced with inorganic nanoparticles: Evaluation as oil spill sorbents*, **Polymers for Advanced Technologies**, **29** (2018) 1435-1446 (Q2)
- [58] V. Shalabaeva, K. Ridier, S. Rat, M. D Manrique-Juarez, L. Salmon, I. Séguy, **A. Rotaru**, G. Molnár, A. Bousseksou, *Room temperature current modulation in large area electronic junctions of spin crossover thin films*, **Appl. Phys. Lett.**, **112** (2018) 013301 (Q1)

2017

- [57] N. N. Adarsh, Marinela M. Dîrtu, **A. Rotaru**, Y. Garcia, *⁵⁷Fe Mossbauer spectroscopy study of a 2D spin transition coordination polymer built from a tris-1R-tetrazole ligand*, **Hyperfine Interact.**, (2017) in press, DOI 10.1007/s10751-017-1431-9
- [56] A. Diaconu, S.-L. Lupu, I. Rusu, I-M. Risca, L. Salmon, G. Molnár, A. Bousseksou, P. Demon, and **A. Rotaru**, *Piezoresistive Effect in the [Fe(Htrz)₂(trz)](BF₄) Spin Crossover Complex*, **J. Phys. Chem. Lett.**, **8** (2017) 3147–3151 (Q1)

- [55] C. Cojocaru, P. P. Dorneanu, A. Airinei, N. Olaru, P. Samoila, **A. Rotaru**, *Design and evaluation of electrospun polysulfone fibers and polysulfone/NiFe₂O₄ nanostructured composite as sorbents for oil spill cleanup*, **Journal of the Taiwan Institute of Chemical Engineers**, **70** (2017) 267-281 (Q1)
- [54] P. Samoila, C. Cojocaru, L. Sacarescu, P. Pascariu Dorneanu, A.-A. Domocos, **A. Rotaru**, "Remarkable catalytic properties of rare-earth doped nickel ferrites synthesized by sol-gel auto-combustion with maleic acid as fuel for CWPO of dyes", **Applied Catalysis B: Environmental**, **202** (2017) 21-32 (Q1)

2016

- [53] C. Lefter, S. Rat, J. Sánchez Costa, M. D. Manrique-Juárez, C. M. Quintero, L. Salmon, I. Séguy, T. Leichle, L. Nicu, P. Demont, **A. Rotaru**, G. Molnár and A. Bousseksou, "Current Switching Coupled to Molecular Spin-States in Large-Area Junctions", **Advanced Materials**, **28** (2016), 7508–7514 (Q1)
- [52] T. Zhao, I. Boldog, V. Spasojevic, **A. Rotaru**, Y. Garcia, C. Janiak, "Solvent-triggered relaxative spin state switching of [Fe (HB (pz)₃)₂] in closed nanoconfinement of NH₂-MIL-101 (Al)", **Journal of Materials Chemistry C**, 2016, **4**, 6588-6601. (Q1)
- [51] M.M. Dirtu, A.D. Naik, **A. Rotaru**, L. Spinu, D. Poelman, Y. Garcia, "Fe-II Spin Transition Materials Including an Amino-Ester 1,2,4-Triazole Derivative, Operating at, below, and above Room Temperature", **Inorganic Chemistry**, **55** (2016) 4278-4295 (Q1)
- [50] C. Lefter, V. Davesne, L. Salmon, G. Molnár, P. Demont, **A. Rotaru**, A. Bousseksou, "Charge Transport and Electrical Properties of Spin Crossover Materials: Towards Nanoelectronic and Spintronic Devices", **Magnetochemistry**, **2** (2016), 18 (Review)
- [49] C. Jureschi, J. Linares, **A. Rotaru**, Y. Garcia, „Multi-Step in 3D Spin Crossover Nanoparticles Simulated by an Ising Model Using Entropic Sampling Monte Carlo Technique", **Magnetochemistry** **2** (2016) 13
- [48] D. A. Safin, K. Robeyns, M. G. Babashkina, Y. Filinchuk, **A. Rotaru**, C. Jureschi, M. P. Mitoraj, J. Hooper, M. Brela and Y. Garcia, „Polymorphism driven optical properties of an anil dye", **CrystEngComm**, **18** (2016) 7249 (Q1)
- [47] CM Jureschi, J. Linares, A. Boulmaali, PR Dahoo, **A. Rotaru**, Y. Garcia, „Pressure and Temperature Sensors Using Two Spin Crossover Materials", **Sensors** **16** (2), 187 (Q2)
- [46] C. Lefter, R. Tan, J. Dugay, S. Tricard, G. Molnár, L. Salmon, J. Carrey, W. Nicolazzi, **A. Rotaru**, A. Bousseksou, "Unidirectional electric field-induced spin-state switching in spin crossover based microelectronic devices", **Chemical Physics Letters**, **644** (2016) 138-141. – Editor's Choice (Q3)
- [45] C-M Jureschi, B.-L. Pottier, J. Linares, P.-R. Dahoo, Y. Alayli, and **A. Rotaru**, "Simulation of multi-steps thermal transition in 2D spin-crossover nanoparticles", **Physica B**, **486** (2016) 160–163 (Q3)

2015

- [44] C. Lefter, R. Tan, S. Tricard, J. Dugay, G. Molnár, L. Salmon, J. Carrey, **A. Rotaru**, A. Bousseksou, "On the stability of spin crossover materials: from bulk samples to electronic devices", **Polyhedron**, **102** (2015) 434–440 (Q2)
- [43] D. Chiruta, C-M. Jureschi, J. Linares, P-R Dahoo, Y. Garcia, **A. Rotaru**, "On the Origin of Multi-Step Spin Transition behaviour in 1D nanoparticles", **Eur. Phys. J. B**, **88**: 233 (2015) 1-5 (Q2)

- [42] D. Chiruta, C-M. Jureschi, J. Linares, J. Nasser, **A. Rotaru** “Analysis of spin crossover nanochains using parabolic approximation in the framework of Atom-phonon coupling model”, *Physica B*, **476** (2015) 5151-5154.(Q3)
- [41] C. Lefter, S. Tricard, H. Peng, G. Molnár, L. Salmon, P. Demont, **A. Rotaru**, A. Bousseksou, “Metal substitution effects on the charge transport and spin transition properties of $[Fe_{1-x}Zn_x(Htrz)_2(trz)](BF_4)$ ($x=0, 0.26, 0.43$)”, *Journal of Physical Chemistry C*, **119** (2015) 8522-8529. (Q1)
- [40] T. Zhao, L. Cuignet, M. M. Dirtu, M. Wolff, V. Spasojevic, I. Boldog, **A. Rotaru**, Y. Garcia and C. Janiak, “Water effect on the spin-transition behavior of Fe(II) 1,2,4-triazole 1D chains embedded in pores of MCM-41”, *J. Mater. Chem. C*, **3** (2015) 7802-7812. (Q1)
- [39] M. M. Dîrtu, F. Schmit, A. D. Naik, I. Rusu, **A. Rotaru**, S. Rackwitz, J. A. Wolny, V. Schunemann, L. Spinu, and Yann Garcia, “Two-Step Spin Transition in a 1D FeII 1,2,4-Triazole Chain Compound”, *Chem. Eur. J.*, **21** (2015) 5843 –5855 (Q1)
- [38] C. Lefter, R. Tan, J. Dugay, S. Tricard, G. Molnár, L. Salmon, J. Carrey, **A. Rotaru**, A. Bousseksou, “Light induced modulation of charge transport phenomena across the bistability region in $[Fe(Htrz)_2(trz)](BF_4)$ spin crossover micro-rods”, *Phys. Chem. Chem. Phys.*, **17** (2015) 5151-5154 (Q1)
- [37] C.-M. Jureschi, J. Linares, **A. Rotaru**, M.-H. Ritti, M. Parlier, M.-M. Dirtu, M. Wolff and Y. Garcia, “Pressure Sensor via Optical Detection Based on a 1D Spin Transition Coordination Polymer”, *Sensors*, **15** (2015) 2388-2398 (Q2)

2014

- [36] D. Chiruta, C.-M. Jureschi, J. Linares, A. Graur, M. Dimian, and **A. Rotaru** – “Analysis of architecture effect on hysteretic behavior of 3D Spin Crossover Nanostructures”, *IEEE Transactions on Magnetics*, **50** (2014) 2900404 (Q3)
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IV. Participare la conferințe:

Am participat cu peste 120 de lucrări la conferințe naționale și internaționale din care: peste 50 de prezentări orale (din care 10 invited lectures) și peste 70 de prezentări sub formă de poster.

V. REFERINȚE

Dr. Azzedine Bousseksou (azzedine.bousseksou@lcc-toulouse.fr) – Laboratoire de Chimie de Coordination, CNRS, Toulouse, France

Dr. Gabor Molnar (gabor.molnar@lcc-toulouse.fr) – Laboratoire de Chimie de Coordination, CNRS, Toulouse, France

Prof. Jorge Linares (jlinares@physique.uvsq.fr) – University of Versailles Saint-Quentin en Yvelines, Versailles, France.

Prof. Alexandru Stancu (alstancu@uaic.ro) – Alexandru Ioan Cuza University, Iasi, Romania.

Prof. Yann Garcia (Yann.Garcia@uclouvain.be) – Catholic University of Leuven, Louvain la Neuve, Belgium.

Prof. Francois Varret (varret_francois@yahoo.fr) – University of Versailles Saint-Quentin en Yvelines, Versailles, France.

Prof. Leonard Spinu (lspinu@uno.edu) – University of New Orleans, New Orleans, Louisiana, USA.

Data:
01.02.2021

Semnătura