

CURRICULUM VITAE

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Surname: ROTARU

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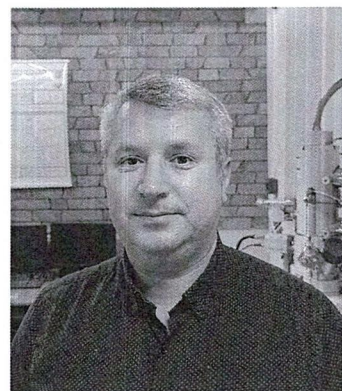
Date and Place of Birth: 17.06.1982, Murgeni, Romania

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Scopus: <https://www.scopus.com/authid/detail.uri?authorId=16403293300>

Web: <http://nanomat.usv.ro/>

Academic:

Since 2020 *Vice Dean* - Faculty of Electrical Engineering and Computer Science, Stefan cel Mare University, 13, Str. Universitatii, 720229 Suceava, Romania.

Since 2011 *Associate professor* – Faculty of Electrical Engineering and Computer Science, Stefan cel Mare University, 13, Str. Universitatii, 720229 Suceava, Romania.

Since 2015 *Head* of Advanced Multifunctional Materials Laboratory (NANOMAT), Research Center MANSiD, Stefan cel Mare University, 13, Str. Universitatii, 720229 Suceava, Romania.

2011-2015 *Head* of Advanced Materials and Nanotechnology Laboratory (AMNOL), Stefan cel Mare University, 13, Str. Universitatii, 720229 Suceava, Romania.

2011-2012 *Guest researcher* at Laboratoire de Chimie de Coordination (LCC), Toulouse, France, C/o Dr. Azzedine BOUSSEKSOU (azzedine.bousseksou@lcc-toulouse.fr) (6 months)

2010 - 2011 *Lecturer* – Faculty of Electrical Engineering and Computer Science, Stefan cel Mare University, 13, Str. Universitatii, 720229 Suceava, Romania.

2009 – 2010 *Postdoctoral researcher* - Advanced Materials Research Institute (AMRI), 2000, Lakeshore Drive, 70148, New Orleans, Louisiana, USA, C/o Dr. Leonard SPINU (lspinu@uno.edu)

- 2008-2009** ½ ATER at Physics Department, UVSQ, Versailles, France
- 2007 – 2008** *Vacataire at Physics Department, UVSQ, Versailles, France*
- 2006 –2009:** *Ph.D studies (joint thesis): University of Versailles Saint Quentin en Yvelines, Versailles, France and “Alexandru Ioan Cuza” University, Iasi, Romania.*
Title of my Ph.D thesis: *“Theoretical and Experimental Study of Pressure and Size Effect on the Bistable Compounds: Thermal Behavior and Study of the Relaxation”*
Thesis Supervisors : **Prof. Dr. Jorge LINARES :** (jlinares@phys.uvsq.fr) and **Prof. Dr. Alexandru STANCU:** (alstancu@uaic.ro)
- 2004 – 2006:** **M. Sc.** *Electrical and Magnetic Properties of Fine and Ultra-Fine Particles,* “Alexandru Ioan Cuza” University, Iasi, Romania
- 2000 – 2004:** **B. Sc.** *Medical Physics,* “Alexandru Ioan Cuza” University, Iasi, Romania

Short Visits:

- 2022 – Visiting Professor** at Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**2 weeks**)
- 2022 – Visiting Professor** at Coordination Chemistry Laboratory (LCC), Toulouse, France (**1 week**)
- 2021 - Invited Researcher** at UkrOrgSyntez Ltd., Kiev, Ukraine (**2 months**)
- 2020 - Invited Researcher** at UkrOrgSyntez Ltd., Kiev, Ukraine (**2 months**)
- 2019 – Invited Researcher** at Coordination Chemistry Laboratory (LCC), Toulouse, France (**2 weeks**)
- 2019 - Invited Researcher** at UkrOrgSyntez Ltd., Kiev, Ukraine (**1.5 months**)
- 2018 - Invited Researcher** at UkrOrgSyntez Ltd., Kiev, Ukraine (**2 months**)
- 2018 – Visiting Professor** at Coordination Chemistry Laboratory (LCC), Toulouse, France (**1 month**)
- 2017 - Invited Researcher** at UkrOrgSyntez Ltd., Kiev, Ukraine (**2 months**)
- 2016 - Invited Researcher** at Coordination Chemistry Laboratory (LCC), Toulouse, France (**1 month**)
- 2015 - Invited Researcher** at Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**1 week**)
- 2015 – Invited Researcher** at Coordination Chemistry Laboratory (LCC), Toulouse, France (**1 week**)
- 2014 - Invited Researcher** at Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**2 weeks**)
- 2013 – Invited Researcher** at Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**2 weeks**)
- 2012 – Invited Researcher** at Coordination Chemistry Laboratory (LCC), Toulouse, France (**1.5 months**)
- 2012 – Invited Researcher** at Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**2 weeks**)
- 2011 – Invited Researcher** at Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**1 week**)

Scholarships:

- 2005 – 2006:** *Socrates Mobility at University of Versailles Saint Quentin en Yvelines, Versailles, France.*
- 2006 – 2007:** *ECONET, PAI (Brancusi), AUF Mobility at GEMaC Laboratory, University of Versailles Saint Quentin en Yvelines, Versailles, France.*
- 2007 – 2008:** *Eiffel PhD Scholarship - for top-level PhD students at University of Versailles Saint Quentin en Yvelines, Versailles, France.*

Personal skills and competences:

Languages: Romanian (mother tongue), French and English.

Technical skills and competences:

- **Experience in**
 - **Experimental techniques:** Magnetometry (SQUID) under various stimuli (temperature, pressure, light), Magneto-transport, Dielectric spectroscopy under various stimuli (temperature, pressure), DSC, Optical properties in variable temperature and pressure (gas pressure cell), Spectrophotometry UV-Vis, FMR (EPR, VNA), PPMS (Heat capacity, AC Susceptibility, Resistivity), Charge Transport Properties (DC), Nano-electro-manipulation (Dielectrophoresis), Electron microscopy (FE-SEM, EDX), Scanning Probe Microscopy (AFM, MFM); Thin film deposition (spin coating), Electrospinning.
 - **Setup automation** (Labview, LabWindows)
 - **Modelling and simulation of hysteresis, Numerical computing.**

Courses Taught:

- Physics for Engineers,
- Introduction to Nanoelectronics.

Grants and Contracts

Principal Investigator or member in more than 20 national and international research projects.

Selected projects:

1. Grant PN-III-CEI-BIM-PBE-2020-0042, *"New switchable molecular materials for multi-sensing applications"*, Contract Nr. 8 BM / 2021 (**PI: Aurelian Rotaru (Rou) and Yann Garcia (Be)**)
2. Grant PN-III-P1-1.1-TE-2019-2194 – *„Smart nanoelectronic devices based on switchable molecular materials – SmartDevice”*. (2020 - 2022), Contract Nr. Te 123 / 2020. (**Coordinator: Aurelian Rotaru**)
3. Grant PN-III-P4-ID-PCCF-2016-0175 – *„High-k Nanoparticle Multilayer Dielectrics for Nanoelectronics and Energy Storage Applications – HIGHkDEVICE”*, Contract No.:

- 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.*
4. H2020-MSCA-RISE-2016, Project No. 734322 - “*Multifunctional Spin Crossover Materials –SPINSWITCH*”, 2017-2021, **954.000,00 € (Coordinator: Aurelian Rotaru)**
 5. 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)**
 6. 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 Gaur, Prof. Mihai Dimian, Prof. Dumitru Amarandei, Prof. Constantin Filote and Assoc. prof. Aurelian Rotaru (contact person)**)
 7. 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:).**
 8. Bilateral Grant Romania-France (UEFISCDI-ANR) – „*Switchable molecules for nanoelectronics and spintronics – SwitchElec*” – (2013-2016) (**PI: Aurelian Rotaru (Rou) and Azzedine Bousseksou (Fr).**)
 9. Bilateral Grant Romania-Belgium (UEFISCDI-WBI) – „*Thermal- and piezo-switchable molecular senseurs based on alpha and beta-amino acids*”(2012-2014) (**PI: Aurelian Rotaru (Rou) and Yann Garcia (Be)**)
 10. 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**)
 11. Grant BD – CNCSIS (Doctoral grant), (2007-2009) - (**PI: Aurelian Rotaru**).

Conference participations

I participated at more than 135 national and international conferences: more than **60 oral presentations** (of which **15 invited and 2 Keynote presentations**) and more than 75 poster presentations.

Book Chapters:

[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

List of publications:

Number of ISI peer-reviewed papers: 119

Number of citations (without self-citations): > 3000

h-index: 30 (according WoK), 30 (according Scopus) and 34 (according Google Scholar)

2023

- [119] Y. Draoui, S. Radi, Y. Bahjou, A. Idir, A. El Mahdaoui, A. Ziad, H. N. Miras, M. Ferbinteanu, **A. Rotaru** and Y. Garcia, *New triazole-based coordination complexes as antitumor agents against triple negative breast cancer MDA-MB-468 cell line*, **RSC Advances**, **13** (2023) 36158-36167 (Q2)
- [118] P. Moradi, E. Taheri-Nassaj, A. Yourdkhani, V. Mykhailovych, A. Diaconu and **A. Rotaru**, *Dielectric, pyroelectric, and ferroelectric studies in $(1-x)\text{AgNbO}_3\text{-}x\text{FeNbO}_4$ lead-free ceramics*, **Dalton Transactions** 52 (2023) 17894 (Q1)
- [117] V. Mykhailovych, G. Caruntu, A. Graur, M. Mykhailovych, P. Fochuk, I. Fodchuk, G.-M. Rotaru, **A. Rotaru**, *Fabrication and Characterization of Dielectric ZnCr_2O_4 Nanopowders and Thin Films for Parallel-Plate Capacitor Applications*, **Micromachines**, **14** (2023) 1759 (Q2)
- [116] W. Li, **A. Rotaru**, M. Wolff, S. Demeshko, F. Meyer, *From a mononuclear $\text{Fe}^{\text{III}}\text{L}_2$ complex to a spin crossover $\text{Fe}^{\text{II}}\text{L}_6$ cage by symmetric ligand architecture modification: insights into the ammonia gas sensing mechanism*, **Journal of Materials Chemistry C**, **11** (2023) 11175-11184 (Q1)
- [115] P. Moradi, E. Taheri-Nassaj, A. Yourdkhani, V. Mykhailovych, A. Diaconu, **A. Rotaru**, *Enhanced energy storage performance in reaction-sintered AgNbO_3 antiferroelectric ceramics*, **Dalton Transactions**, **52** (2023) 4462-4474 (Q1)
- [114] Li Sun, Nour El Islam Belmouri, Mamadou Ndiaye, Koen Robeyns, Aurelian Rotaru, Kamel Boukheddaden, Yann Garcia, *Thermal-Driven Guest-Induced Spin Crossover Behavior in 3D Fe (II)-Based Porous Coordination Polymers*, **Crystal Growth & Design**, **23** (2023) 3402-3411 (Q1)
- [113] F.-D. Cojocar, I. Gardikiotis, G. Dodi, **A. Rotaru**, V. Balan, E. Rezus, L. Verestiuc, *"Polysaccharides-calcium phosphates composite beads as bone substitutes for fractures repair and regeneration"*, **Polymers**, **6** (2023) 1509 (Q1)
- [112] L. Mihai, G. Caruntu, A. Rotaru, D. Caruntu, V. Mihailovici, C. E. Ciomaga, N. Horchidan, A. Stancalie and A. Marcu, *GHz – THz dielectric properties of flexible matrix embedded BTO nanoparticles*, **Materials**, **16** (2023), 1292 (Q2)
- [111] L. Padurariu, N. Horchidan, C. Ciomaga, L.-P. Curecheriu, V. Lukacs, R. Stirbu, G. Stoian, M. Botea, M. Florea, V.-A. Maraloiu, L. Pintilie, A. Rotaru, L. Mitoseriu, *The influence of ferroelectric filler size & clustering on the electrical properties of $(\text{Ag-BaTiO}_3)\text{-PVDF}$ sub-percolative hybrid composites*, **ACS Applied Materials & Interfaces**, **15** (2023), 5744-5759 (Q1)
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2022

- [110] L. Sun, M. Ndiaye, N. El Islam Belmouri, K. Robeyns, A. Rotaru, K. Boukheddaden, and Y. Garcia, *Spin Crossover Coordination Polymers with Pyridine-Like 2 Modification through Selective Guest Molecules*, **Crystal Growth & Design**, **22** (2022), 7555-7563 (Q1)

- [109] N. Fifere, A. Airinei, M. Asăndulesa, A. Rotaru, E.-L. Ursu, F. Doroftei, *Investigating the vibrational, magnetic and dielectric properties, and antioxidant activity of cerium oxide nanoparticles*, **Int. J. Molec. Sci.**, **23** (2022) 13883 (Q1)
- [108] Y. Bibik, S. Shova, A. Rotaru, S. Shylin, I. Fritsky, R. Lampeka, I. Gural'skiy, *Cooperative Spin Crossover above Room Temperature in Iron(II) Cyanoborohydride Pyrazine Complex*, **Inorg. Chem.**, **61** (2022) 14761-14769 (Q1)
- [107] F. Molaverdi, R. Sarraf-Mamoory, A. Yourdkhani, A. Diaconu, A. Rotaru, *Electrical and magnetic properties of Mg_{0.85}Co_{0.15}Fe₂O₄ ceramics with V₂O₅ additives*, **J Mater Sci: Mater. Electron.**, **33** (2022) 20194–20203 (Q2)
- [106] V. Kumar, A. Rotaru and Y. Garcia, *Room temperature light induced spin state switching in a Fe II coordination polymer featuring a photo responsive anion*, **Journal of Materials Chemistry C**, **10** (2022) 14128-14134 (Q1)
- [105] S. Salemizadeh Parizi, D. Caruntu, **A. Rotaru**, G. Caruntu, *High-k BaTiO₃ Nanoparticle Films as Gate Dielectrics for Flexible Field Effect Transistors*, **Materials Advances**, **3** (2022) 6474-6484 (Q2)
- [104] L. Sun, **A. Rotaru**, Y. Garcia, *A non-porous Fe(II) complex for the colorimetric detection of hazardous gases and the monitoring of meat freshness*, **Journal of Hazardous Materials**, **437** (2022) 129364 (Q1)
- [103] Y. Draoui, S. Radi, A. Tanan, A. Oulmidi, H. N. Miras, R. Benabbes, S. Ouahhoudo, S. Mamri, **A. Rotaru**, Y. Garcia, *Novel Family of Bis-pyrazole Coordination Complexes as Potent Antibacterial and Antifungal agents*, **RSC Adv.**, **12** (2022) 17755 (Q2)
- [102] W. Li, L. Sun, C. Liu, **A. Rotaru**, K. Robeyns, M. L Singleton, Y. Garcia, *Supramolecular Fe II₄ L₄ cage for fast ammonia sensing*, **J. Mater. Chem. C**, **10** (2022) 9216-9221 (Q1)
- [101] O. I. Kucheriv, V. I. Grygoruk, V. V. Oliynyk, V. V. Zagorodnii, V. L. Launets, **A. Rotaru**, I. A. Gural'skiy, *A Vanadium Dioxide-PMMA Composite For Microwave Radiation Switching*, **ChemPlusChem**, **87** (2022) e202200107 (Q2)
- [100] C. E. Ciomaga, N. Horchidan, L. Padurariu, R. S. Stirbu, V. Tiron, F. M. Tufescu, I. Topala, O. Condurache, M. Botea, I. Pintilie, L. Pintilie, **A. Rotaru**, G. Caruntu, L. Mitoseriu, *BaTiO₃ nanocubes-gelatin composites for piezoelectric harvesting: Modeling and experimental study*, **Ceramics International**, **48** (2022) 25880-25893 (Q1)
- [99] N. Horchidan, C. E. Ciomaga, L. P. Curecheriu, G. Stoian, M. Botea, M. Florea, V. A. Maraloiu, L. Pintilie, F. M. Tufescu, V. Tiron, **A. Rotaru** and L. Mitoseriu, *Increasing Permittivity and Mechanical Harvesting Response of PVDF-Based Flexible Composites by Using Ag Nanoparticles onto BaTiO₃ Nanofillers*, **Nanomaterials** **12** (2022) 934 (Q1)
- [98] V. M. Hiiuk, S. I. Shylin, D. D. Barakhtii, D. M. Korytko, V. O. Kotsyubynsky, **A. Rotaru**, S. Shova, and I. A. Gural'skiy, *Two-step spin crossover in Hofmann-type coordination polymers [Fe(2-phenylpyrazine)₂{M(CN)₂}₂] (M = Ag, Au)*, **Inorg. Chem.**, **61** (2022) 2093-2104 (Q1)
- [97] V.A. Lukacs, M. Airimioaei, L. Padurariu, L.P. Curecheriu, C.E. Ciomaga, A. Bencan, G. Drazic, M. Avakian, J.L. Jones, G. Stoian, M. Deluca, R. Brunner, **A. Rotaru**, L. Mitoseriu, *Phase coexistence and grain size effects on the functional properties of BaTiO₃ ceramics*, **J. Eur.Ceram. Soc.**, **42** (2022) 101644 (Q1)
- [96] M. Nili-Ahmad-Ababdi, R. Sarraf-Mamoory, A. Yourdkhani, A. Diaconu, **A. Rotaru**, *Magnetic and electrical properties of Mg_{1-x}Co_xFe₂O₄ (x=0-0.15) ceramics prepared by the solid-state method*, **J. Eur. Ceram. Soc.**, **42** (2022) 442-447 (Q1)
- [95] P. Pascariu, C. Cojocar, P. Samoila, A. Airinei, N. Oлару, **A. Rotaru**, C. Romanitan, L.B. Tudoran, M. Suche, *Cu/TiO₂ composite nanofibers with improved photocatalytic*

2021

- [94] V. Mykhailovych, A. Kanak, Ş. Cojocaru, E.-D. Chitoiu-Arsene, M. N. Palamaru, A.-R. Jordan, O. Korovyanko, A. Diaconu, V. G. Ciobanu, G. Caruntu, O. Lushchak, P. Fochuk, Y. Khalavka, **A. Rotaru** *Structural, Optical, and Catalytic Properties of MgCr₂O₄ Spinel-type Nanostructures Synthesized by Sol-Gel Auto-Combustion Method*, **Catalysts**, **11** (2021) 1476 (Q2)
- [93] L. Sun, **A. Rotaru**, Y. Garcia, *⁵⁷Fe Mössbauer study of an iron(II) sensor for the detection of toxic gases at room temperature*, **Hyperfine Interact** **242** (2021) 23
- [92] A. Oulmidi, S. Radi, A. Idir, A. Ziad, I. Kabach, M. Nhiri, K. Robeyns, **A. Rotaru** and Y. Garcia, *Synthesis and cytotoxicity against tumor cells of pincer N-heterocyclic ligands and their transition metal complexes*, **RSC Adv.**, **11** (2021) 34742 (Q2)
- [91] A. Oulmidi, **A. Rotaru**, S. Radi and Y. Garcia, *Pyrazole's substituents effect on the spin state of [Fe(bpp)₂]²⁺ complexes*, **Hyperfine Interact** **242** (2021) 8
- [90] Y. Guo, **A. Rotaru**, H. Müller-Bunz, Grace G Morgan, Shishen Zhang, Shufang Xue, Yann Garcia, *Auxiliary alkyl chain modulated spin crossover behaviour in [Fe(H₂Bpz₂)₂(Cn-bipy)] complexes*, **Dalton Transactions**, **50** (2021) 12835-12842 (Q1)
- [89] S. F. Xue, L. Wang, A. D. Naik, J. Olah, K. Robeyns, **A. Rotaru**, Y. N. Guo, Y. Garcia, *Iron(ii) pillared-layer responsive frameworks via "kagome dual" (kgd) supramolecular tessellations*, **Inorganic Chemistry Frontiers**, **60** (2021) 8788–8798 (Q1)
- [88] G. M. Rotaru, E. Codjovi, P.-R. Dahoo, I. Maurin, J. Linares, **A. Rotaru**, *Monitoring spin-crossover properties by diffused reflectivity*, **Symmetry**, **13** (2021) 1148 (Q2)
- [87] I. Kuzevanova, O. I. Kucheriv, V. M. Hiiuk, D. Naumova, S. Shova, S. I. Shylin, V. Kotsyubynsky, **A. Rotaru**, I. O. Fritsky and Il'ya A. Gural'skiy, *Spin Crossover in Iron(II) Hofmann Clathrates Analogues with 1,2,3-triazole*, **Dalton Transactions**, **50** (2021) 9250-9258 (Q1)
- [86] L. Sun, **A. Rotaru**, K. Robeyns, Y. Garcia, Yann, *A colorimetric sensor for the highly selective, ultra-sensitive and rapid detection of volatile organic compounds and hazardous gases*, **Industrial & Engineering Chemistry Research**, **60** (2021) 8788-8798 (Q2)
- [85] N. Varastegani, A. Yourdkhani, S. A. S. Ebrahimi, **A. Rotaru**, *"The effects of sintering temperature on structural, electrical, and magnetic properties of MgFe_{1.92}Bi_{0.08}O₄"*, **Journal of Electroceramics**, **46** (2021) 151-161 (Q1)
- [84] A. V. Lukacs, G. Caruntu, O. Condurache, C.E. Ciomaga, L.P. Curecheriu, L. Padurariu, M. Ignat, M. Airimioaei, G. Stoian, **A. Rotaru**, L. Mitoseriu *"Preparation and properties of porous BaTiO₃ nanostructured ceramics produced from cuboidal nanocrystals"*, **Ceramics International**, **47** (2021) 18105-18115 (Q1)
- [83] I. Rusu, I. C. Manolache-Rusu, A. Diaconu, O. Palamarciuc, I. A. Gural'skiy, 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 [Fe(pyrazine)Pt(CN)₄] thin films deposited by matrix-assisted laser evaporation"*, **Appl. Surf. Science**, **541** (2021) 148419 (Q1)
-

- [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.**, **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 $[Fe(Htrz)_{1+y-x}(trz)_{2-y}(NH_2trz)_x](BF_4)_y \cdot nH_2O$* , **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 (Q2)
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