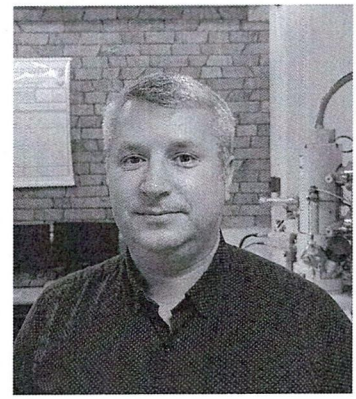
CURRICULUM VITAE

Personal data:



Surname: ROTARU
First Name: Aurelian
Date and Place of Birth: 17.06.1982, Murgeni, Romania
Marital Status: Married
Postal Address: 13, Str. Universitatii, 720229, Suceava.
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ResearcherID: https://publons.com/researcher/246799/aurelian-rotaru/
GoogleScholar: https://scholar.google.com/citations?user=jyyC34AAAAAJ&hl=ro&oi=ao
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*)\

[redacted]

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**)

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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 Graur, 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 Aplications -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

[redacted]

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

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[119] Y. Draoui, S. Radi, Y. Bahjou, A. Idir, A. El Mahdaoui, A. Zyad, 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* $(1-x)AgNbO_{3-x}FeNbO_4$ *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 ZnCr2O4 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 FeIIL2 complex to a spin crossover* $Fe^{II}_4L_6$ *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 AgNbO3 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. Cojocaru, 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 (Ag-*$BaTiO_3$*)-PVDF sub-percolative hybrid composites*, **ACS Applied Materials & Interfaces**, **15** (2023), 5744-5759 **(Q1)**

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[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)**

[redacted]

[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 Mg0. 85Co0. 15Fe2O4 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 L 4 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, *$BaTiO_3$ 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 $BaTiO_3$ 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 $[Fe(2\text{-phenylpyrazine})_2\{M(CN)_2\}_2]$ (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 $Mg_{1-x}Co_xFe_2O_4$ (x=0-0.15) ceramics prepared by the solid-state method,* **J. Eur. Ceram. Soc., 42** (2022) 442-447 **(Q1)**

[95] P. Pascariu, C. Cojocaru, P. Samoila, A. Airinei, N. Olaru, **A. Rotaru**, C. Romanitan, L.B. Tudoran, M. Suchea, *Cu/TiO2 composite nanofibers with improved photocatalytic*

performance under UV and UV-visible light irradiation, **Surfaces and Interfaces**, 28 (2022) 101644 **(Q1)**

2021

[94] V. Mykhailovych, A. Kanak, Ş. Cojocaru, E.-D. Chitoiu-Arsene, M. N. Palamaru, A.-R. Iordan, 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, *^{57}Fe 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. Zyad, 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 $MgFe_{1.92}Bi_{0.08}O_4$"*, **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 $BaTiO_3$ 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. Jendrzejewski, **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)**

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., 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)**

[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)**

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