

INFORMAȚII PERSONALE

Aurelian ROTARU



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Google Scholar: <https://scholar.google.com/citations?user=jvyC34AAAAAJ&hl=ro&oi=ao>

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

Starea civilă Căsătorit | Data nașterii 17/06/1982 | Naționalitatea Română

LOCUL DE MUNCA

Conferențiar universitar în cadrul Facultății de Inginerie Electrică și Știința Calculatoarelor, Universitatea „Ștefan cel Mare” din Suceava

EXPERIENȚA PROFESIONALĂ

2024 - prezent

Prorector cu activitatea științifică

Universitatea „Ștefan cel Mare” din Suceava

- Activități de management

2020 - 2024

Prodecan cu activitatea de cercetare

Facultatea de Inginerie Electrică și Știința Calculatoarelor, Universitatea „Ștefan cel Mare” din Suceava

- Activități de management

2015 - prezent

Coordonator activitate de cercetare laborator NANOMAT

Centrul de Cercetare MANSID, Universitatea „Ștefan cel Mare” din Suceava

- Activități de management și de cercetare

2011 - prezent

Conferențiar

Facultatea de Inginerie Electrică și Știința Calculatoarelor, Universitatea „Ștefan cel Mare” din Suceava

- Activități didactice și de cercetare
- Cursuri predate: Fizică 1, Fizică 2, Introducere în nanoelectronică.

2011 - 2012

Cercetător invitat

Laboratoire de Chimie de Coordination (LCC), Toulouse, Franța, C/o Dr. Azzedine BOUSSEKSOU (azzedine.bousseksou@lcc-toulouse.fr) (6 luni)

- Activități de cercetare

2010 - 2011

Șef de lucrări

Facultatea de Inginerie Electrică și Știința Calculatoarelor, Universitatea „Ștefan cel Mare” din Suceava

- Activități didactice și de cercetare
- Cursuri predate: Fizică 1, Fizică 2.

2009 - 2010

Cercetător postdoctoral

Advanced Materials Research Institute (AMRI), 2000, Lakeshore Drive, 70148, New Orleans, Louisiana, USA, C/o Dr. Leonard SPINU (lspinu@uno.edu)

- Activități de cercetare

2008 - 2009

Asistent universitar (½ ATER)

Departamentul de Fizică, Universitatea Saint-Quentin-en-Yvelines, Versailles, Franța

- Activități didactice

- Coordonator aplicații practice de Fizică Numerică, Electricitate și magnetism.

EDUCAȚIE ȘI FORMARE

- 2006-2009 **Studii doctorale (Teză de doctorat în cotutelă)**
Titlul tezei: *Etude théorique et expérimentale de l'effet de la pression et de la taille sur des composés bistables: comportement thermique et étude de la relaxation.*
 Universitatea din Versailles-Saint-Quentin-en-Yvelines (UVSQ) și Universitatea „Alexandru Ioan Cuza” din Iași (UAIC)
- 2005-2006 **Masterat (M2): MATEC-Matériaux, Technologies et Composants**
 Mobilitate Erasmus (10 luni) in cadrul Universității din Versailles-Saint-Quentin-en-Yvelines (UVSQ)
- 2004-2006 **Masterat: Proprietăți Electrice și Magnetice ale structurilor fine și ultrafine.**
 Facultatea de Fizică, Universitatea „Alexandru Ioan Cuza” din Iași (UAIC)
- 2000-2004 **Licență: Fizică medicală.**
 Facultatea de Fizică, Universitatea „Alexandru Ioan Cuza” din Iași (UAIC)

COMPETENTE PERSONALE

Limbi străine cunoscute

	INTELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversație	Discurs oral	
Engleza	C1	C1	C1	C1	C1
Scrieți denumirea certificatului. Scrieți nivelul, dacă îl cunoașteți.					
Franceza	C2	C2	C2	C2	C2
Scrieți denumirea certificatului. Scrieți nivelul, dacă îl cunoașteți.					

Niveluri: A1/2: Utilizator elementar - B1/2: Utilizator independent - C1/2: Utilizator experimentat
 Cadrul european comun de referință pentru limbi străine

Competențe tehnice

- **Experiență tehnică în analiza proprietăților fizice ale materialelor:** magnetice (MPMS, VSM, AGM) sub acțiunea unor stimuli externi (temperatură, presiune, lumină); Magneto-transport; Spectroscopie dielectrică sub acțiunea unor stimuli externi (temperatură, presiune, lumină); Calorimetrice (DSC); Optice în temperatură și presiune variabilă (celulă de presiune cu gaz), spectrofotometrie UV-Vis, FMR (EPR, VNA), PPMS (Caldură specifică, susceptibilitate AC, rezistivitate); Nano-electro-manipulare (Dielectroforeză); Microscopie Electronică (FE-SEM, EDX), Microscopie cu scanare a probei (AFM, MFM), depunere de straturi subțiri (spin coating), fabricare de micro- și nano-fibre (Electrospinning).
- **Automatizare (Labview, LabWindows)**
- **Modelarea și simularea histerezisului**

INFORMAȚII SUPLIMENTARE

- Publicații** ▪ 119 articole ISI, peste 3000 de citări (exceptând autocitările); h-index: 31 (conform WoK și Scopus), 34 (Conform Google Scholar) – vezi anexa 4.
- Conferințe** ▪ Am participat la peste 135 de conferințe internaționale: peste 60 de prezentări orale (din care 15 prezentări invitate și 2 Keynote) și peste 75 de prezentări sub formă de poster.
- Proiecte** ▪ Am coordonat peste 11 proiecte naționale și internaționale și am fost implicat în peste 20 de proiecte – vezi anexa 2.

ANEXE

Anexa 1. Vizite/Stagii de cercetare

- 2022 - *Cercetător invitat la* Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**2 saptamani**)
- 2021 – *Cercetător invitat la* Coordination Chemistry Laboratory (LCC), Toulouse, France (**1 saptamană**)
- 2021- *Cercetător invitat la* UkrOrgSyntez Ltd. , Kiev, Ukraine (**2 luni**)
- 2020 - *Cercetător invitat la* UkrOrgSyntez Ltd. , Kiev, Ukraine (**2 luni**)
- 2019 – *Cercetător invitat la* Coordination Chemistry Laboratory (LCC), Toulouse, France (**2 saptamani**)
- 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 saptamana**)
- 2015 – *Cercetător invitat la* Coordination Chemistry Laboratory (LCC), Toulouse, France (**1 saptamana**)
- 2014 - *Cercetător invitat la* Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**2 saptamani**)
- 2013 – *Cercetător invitat la* Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**2 saptamani**)
- 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 saptamani**)
- 2011 – *Cercetător invitat la* Institute of Condensed Matter and Nanosciences (IMCN), UCL, Louvain la Neuve, Belgium (**1 saptamana**)

Anexa 2. Proiecte/granturi de cercetare

Director de proiect sau membru în peste 20 de proiecte de cercetare naționale și internaționale.

Proiecte selectate:

- 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)**)
- 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**)
- 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.
- H2020-MSCA-RISE-2016, Project No. 734322 - “*Multifunctional Spin Crossover Materials – SPINSWITCH*”, 2017-2021, **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**).

Anexa 3. Capitole de carte

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

Anexa 4. Articole ISI

Lista publicațiilor:

Număr de articole ISI peer-reviewed: 119

Număr de citări (fără autocitări): > 3000

h-index: 31 (conform WoK), 31 (conform Scopus) and 34 (conform Google Scholar)

2023

- [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}FeNbO₄ 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 Fe^{III}L₂ complex to a spin crossover Fe^{II}₄L₆ 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-BaTiO₃)-PVDF sub-percolative hybrid composites*, **ACS Applied Materials & Interfaces**, **15** (2023), 5744-5759 (Q1)

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. Saleemizadeh 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 $[Fe(2\text{-phenylpyrazine})_2\{M(CN)_2\}_2]$ ($M = Ag, Au$)*, **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. Cojocar, P. Samoila, A. Airinei, N. Oлару, **A. Rotaru**, C. Romanitan, L.B. Tudoran, M. Suche, *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. Cojocar, 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, *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 $[Fe(H_2Bpz_2)_2(Cn\text{-bipy})]$ 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 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. Sliwiński, “*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)**

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