Aurelian Rotaru

List of Publications by Year
in descending order

105	3,083	147801	175258
papers	citations	31 h-index	52 g-index

109	109	109	3004
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magnetic and electrical properties of Mg1-xCoxFe2O4 (x = 0-0.15) ceramics prepared by the solid-state method. Journal of the European Ceramic Society, 2022, 42, 442-447.	5.7	7
2	Cu/TiO2 composite nanofibers with improved photocatalytic performance under UV and UVâ€“visible light irradiation. Surfaces and Interfaces, 2022, 28, 101644.	3.0	14
3	Two-Step Spin Crossover in Hofmann-Type Coordination Polymers [Fe(2-phenylpyrazine)₂{M(CN)₂}₂] (M = Ag, Au). Inorganic Chemistry, 2022, 61, 2093-2104.	4.0	13
4	Phase coexistence and grain size effects on the functional properties of BaTiO3 ceramics. Journal of the European Ceramic Society, 2022, 42, 2230-2247.	5.7	25
5	Increasing Permittivity and Mechanical Harvesting Response of PVDF-Based Flexible Composites by Using Ag Nanoparticles onto BaTiO3 Nanofillers. Nanomaterials, 2022, 12, 934.	4.1	9
6	Supramolecular FeII4L₄ cage for fast ammonia sensing. Journal of Materials Chemistry C, 2022, 10, 9216-9221.	5.5	18
7	BaTiO3 nanocubes-Gelatin composites for piezoelectric harvesting: Modeling and experimental study. Ceramics International, 2022, , .	4.8	3
8	Novel family of bis-pyrazole coordination complexes as potent antibacterial and antifungal agents. RSC Advances, 2022, 12, 17755-17764.	3.6	7
9	A non-porous Fe(II) complex for the colorimetric detection of hazardous gases and the monitoring of meat freshness. Journal of Hazardous Materials, 2022, 437, 129364.	12.4	12
10	Spin crossover and cooperativity in nanocrystalline [Fe(pyrazine)Pt(CN)4] thin films deposited by matrix-assisted laser evaporation. Applied Surface Science, 2021, 541, 148419.	6.1	9
11	Iron(<scp>ii</scp>) pillared-layer responsive frameworks via â€œkagomÃ© dualâ€•(kgd) supramolecular tessellations. Inorganic Chemistry Frontiers, 2021, 8, 3532-3546.	6.0	8
12	Spin crossover in iron(<scp>ii</scp>) Hofmann clathrates analogues with 1,2,3-triazole. Dalton Transactions, 2021, 50, 9250-9258.	3.3	11
13	Auxiliary alkyl chain modulated spin crossover behaviour of [Fe(H₂Bpz₂)₂(C_n-bipy)] complexes. Dalton Transactions, 2021, 50, 12835-12842.	3.3	3
14	Pressure gradient effect on spin-crossover materials: Experiment vs theory. Journal of Applied Physics, 2021, 129, 064501.	2.5	6
15	A Colorimetric Sensor for the Highly Selective, Ultra-sensitive, and Rapid Detection of Volatile Organic Compounds and Hazardous Gases. Industrial & Engineering Chemistry Research, 2021, 60, 8788-8798.	3.7	26
16	The effects of sintering temperature on structural, electrical, and magnetic properties of MgFe1.92Bi0.08O4. Journal of Electroceramics, 2021, 46, 151-161.	2.0	0
17	Monitoring Spin-Crossover Properties by Diffused Reflectivity. Symmetry, 2021, 13, 1148.	2.2	4
18	Preparation and properties of porous BaTiO3 nanostructured ceramics produced from cuboidal nanocrystals. Ceramics International, 2021, 47, 18105-18115.	4.8	14

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19	Pyrazole's substituents effect on the spin state of [Fe(bpp)2]2+complexes. Hyperfine Interactions, 2021, 242, 1.	0.5	3
20	Synthesis and cytotoxicity against tumor cells of pincer N-heterocyclic ligands and their transition metal complexes. RSC Advances, 2021, 11, 34742-34753.	3.6	7
21	57Fe MÃ¶ssbauer study of an iron(II) sensor for the detection of toxic gases at room temperature. Hyperfine Interactions, 2021, 242, .	0.5	1
22	Structural, Optical, and Catalytic Properties of MgCr2O4 Spinel-Type Nanostructures Synthesized by Solâ€“Gel Auto-Combustion Method. Catalysts, 2021, 11, 1476.	3.5	6
23	Varistor and electrical properties of MgO.(Fe2O3)1â^'x(Bi2O3)x ceramics. Journal of the European Ceramic Society, 2020, 40, 1325-1329.	5.7	12
24	Innovative Low-Cost Carbon/ZnO Hybrid Materials with Enhanced Photocatalytic Activity towards Organic Pollutant Dyesâ€™ Removal. Nanomaterials, 2020, 10, 1873.	4.1	9
25	Direct Synthesis of Spinâ€Crossover Complexes: An Unexpectedly Revealed New Ironâ€Triazolic Structure. European Journal of Inorganic Chemistry, 2020, 2020, 4523-4531.	2.0	13
26	Iron(ii) coordination pyrazole complexes with aromatic sulfonate ligands: the role of ether. New Journal of Chemistry, 2020, 44, 13902-13912.	2.8	7
27	Anomalous Pressure Effects on the Electrical Conductivity of the Spin Crossover Complex [Fe(pyrazine){Au(CN)2}2]. Magnetochemistry, 2020, 6, 31.	2.4	4
28	Ligand substitution effects on the charge transport properties of the spin crossover complex [Fe(Htrz)1+yâ^'x (trz)2â^'y (NH2trz) x](BF4)yÂ·nH2O. Journal of Physics Condensed Matter, 2020, 32, 264002.	1.8	1
29	Spin crossover in 2D iron(<scp>ii</scp>) phthalazine cyanometallic complexes. Dalton Transactions, 2020, 49, 5302-5311.	3.3	15
30	Dielectric properties of solution-processed BaTiO3â€“styrene butadiene styrene nanocomposite films. CrystEngComm, 2020, 22, 1261-1272.	2.6	7
31	Resistance switching in large-area vertical junctions of the molecular spin crossover complex [Fe(HB(tz)₃)₂]: ON/OFF ratios and device stability. Journal of Physics Condensed Matter, 2020, 32, 214010.	1.8	12
32	Pathway selection as a tool for crystal defect engineering: A case study with a functional coordination polymer. Applied Materials Today, 2020, 20, 100632.	4.3	7
33	Synthesis and light-induced aggregation of benzoate-stabilized silver nanoparticles. Applied Nanoscience (Switzerland), 2019, 9, 709-714.	3.1	4
34	Ligand field strength tuning in the model [Fe(H2Bpz2)2(bipy)] spin crossover complex. Hyperfine Interactions, 2019, 240, 1.	0.5	4
35	Microwave-Assisted Synthesis of an Alternant Poly(fluoreneâ€“oxadiazole). Synthesis, Properties, and White Light-Emitting Devices. Polymers, 2019, 11, 1562.	4.5	6
36	Room temperature hysteretic spin crossover in a new cyanoheterometallic framework. Chemical Communications, 2019, 55, 3359-3362.	4.1	28

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37	Broad-Band Dielectric Spectroscopy Reveals Peak Values of Conductivity and Permittivity Switching upon Spin Crossover. Journal of Physical Chemistry Letters, 2019, 10, 7391-7396.	4.6	11
38	Novel fibrous composites based on electrospun PSF and PVDF ultrathin fibers reinforced with inorganic nanoparticles: Evaluation as oil spill sorbents. Polymers for Advanced Technologies, 2018, 29, 1435-1446.	3.2	28
39	Room temperature current modulation in large area electronic junctions of spin crossover thin films. Applied Physics Letters, 2018, 112, .	3.3	39
40	New insights into structural and magnetic properties of Ce doped ZnO nanoparticles. Journal of Alloys and Compounds, 2018, 757, 60-69.	5.5	83
41	Pressure effect investigations on spin-crossover coordination compounds. Comptes Rendus Chimie, 2018, 21, 1095-1120.	0.5	60
42	Spin crossover in two 1D Fe(II) polymers with 1,2,4-triazole thiourea building blocks. Hyperfine Interactions, 2018, 239, 1.	0.5	1
43	Quasi-Monodisperse Transition-Metal-Doped BaTiO₃ (M = Cr, Mn, Fe, Co) Colloidal Nanocrystals with Multiferroic Properties. ACS Applied Nano Materials, 2018, 1, 4863-4874.	5.0	19
44	Insights into the optical, magnetic and dielectric properties of some novel polysulfone/NiFe₂O₄ composite materials. Polymer International, 2018, 67, 1313-1324.	3.1	7
45	Spin Crossover Behavior in a Homologous Series of Iron(II) Complexes Based on Functionalized Bipyridyl Ligands. Inorganic Chemistry, 2018, 57, 9880-9891.	4.0	36
46	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, 2017, 70, 267-281.	5.3	55
47	Piezoresistive Effect in the [Fe(Htrz)₂(trz)](BF₄) Spin Crossover Complex. Journal of Physical Chemistry Letters, 2017, 8, 3147-3151.	4.6	29
48	57Fe MÃ¶ssbauer spectroscopy study of a 2D spin transition coordination polymer built from a tris-1R-tetrazole ligand. Hyperfine Interactions, 2017, 238, 1.	0.5	6
49	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, 2017, 202, 21-32.	20.2	78
50	Molecular Magnetism Modeling with Applications in Spin Crossover Compounds. , 2016, , .		1
51	Multi-Step in 3D Spin Crossover Nanoparticles Simulated by an Ising Model Using Entropic Sampling Monte Carlo Technique. Magnetochemistry, 2016, 2, 13.	2.4	9
52	Charge Transport and Electrical Properties of Spin Crossover Materials: Towards Nanoelectronic and Spintronic Devices. Magnetochemistry, 2016, 2, 18.	2.4	166
53	Pressure and Temperature Sensors Using Two Spin Crossover Materials. Sensors, 2016, 16, 187.	3.8	68
54	Current Switching Coupled to Molecular Spinâ€States in Largeâ€Area Junctions. Advanced Materials, 2016, 28, 7508-7514.	21.0	93

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55	Fe^{II} Spin Transition Materials Including an Aminoâ€“Ester 1,2,4-Triazole Derivative, Operating at, below, and above Room Temperature. Inorganic Chemistry, 2016, 55, 4278-4295.	4.0	39
56	Solvent-triggered relaxative spin state switching of [Fe(HB(pz)₃)₂] in a closed nano-confinement of NH₂-MIL-101(Al). Journal of Materials Chemistry C, 2016, 4, 6588-6601.	5.5	36
57	Simulation of multi-steps thermal transition in 2D spin-crossover nanoparticles. Physica B: Condensed Matter, 2016, 486, 160-163.	2.7	3
58	Polymorphism driven optical properties of an anil dye. CrystEngComm, 2016, 18, 7249-7259.	2.6	29
59	Unidirectional electric field-induced spin-state switching in spin crossover based microelectronic devices. Chemical Physics Letters, 2016, 644, 138-141.	2.6	58
60	Water effect on the spin-transition behavior of Fe(<scp>ii</scp>) 1,2,4-triazole 1D chains embedded in pores of MCM-41. Journal of Materials Chemistry C, 2015, 3, 7802-7812.	5.5	46
61	Light induced modulation of charge transport phenomena across the bistability region in [Fe(Htrz)₂(trz)](BF₄) spin crossover micro-rods. Physical Chemistry Chemical Physics, 2015, 17, 5151-5154.	2.8	33
62	Twoâ€Step Spin Transition in a 1D Fe^{II} 1,2,4â€Triazole Chain Compound. Chemistry - A European Journal, 2015, 21, 5843-5855.	3.3	28
63	Analysis of spin crossover nanochains using parabolic approximation in the framework of atomâ€“phonon coupling model. Physica B: Condensed Matter, 2015, 476, 61-70.	2.7	2
64	Pressure Sensor via Optical Detection Based on a 1D Spin Transition Coordination Polymer. Sensors, 2015, 15, 2388-2398.	3.8	50
65	Metal Substitution Effects on the Charge Transport and Spin Crossover Properties of [Fe_{1â€“x}Zn_x(Htrz)₂(trz)](BF₄) (trz =) Tj ETQq1 1 0.784314 rgBT /Ov	3.0	24
66	On the origin of multi-step spin transition behaviour in 1D nanoparticles. European Physical Journal B, 2015, 88, 1.	1.5	18
67	On the stability of spin crossover materials: From bulk samples to electronic devices. Polyhedron, 2015, 102, 434-440.	2.2	33
68	Analysis of Architecture Effect on Hysteretic Behavior of 3-D Spin Crossover Nanostructures. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	1
69	Lattice architecture effect on the cooperativity of spin transition coordination polymers. Journal of Applied Physics, 2014, 115, 053523.	2.5	26
70	MÃ¶ssbauer spectroscopy monitoring the spin transition of a FeII 1D chain with a fluorinated 4-R-1,2,4-triazole. Hyperfine Interactions, 2014, 226, 223-227.	0.5	1
71	Dielectric and charge transport properties of the spin crossover complex [Fe(Htrz)₂(trz)](BF₄). Physica Status Solidi - Rapid Research Letters, 2014, 8, 191-193.	2.4	38
72	Selective and Reusable Iron(II)-Based Molecular Sensor for the Vapor-Phase Detection of Alcohols. Inorganic Chemistry, 2014, 53, 1263-1265.	4.0	61

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73	Thermo- and piezochromic properties of [Fe(hyptrz)]A2Â·H2O spin crossover 1D coordination polymer: Towards spin crossover based temperature and pressure sensors. Physica B: Condensed Matter, 2014, 449, 47-51.	2.7	23
74	A performance analysis of parallel eigensolvers for large dense symmetric matrices. , 2014, , .		0
75	Spin state tuning in FeII 1D coordination polymers made of 1,2,4-triazol-4-yl-propanoic and butanoic acids. Hyperfine Interactions, 2013, 217, 67-72.	0.5	4
76	Nanoâ€electromanipulation of Spin Crossover Nanorods: Towards Switchable Nanoelectronic Devices. Advanced Materials, 2013, 25, 1745-1749.	21.0	132
77	Weak cooperativity in selected iron(II) 1D coordination polymers. , 2013, , 223-227.		1
78	1D iron(II) spin crossover complexes with 1,2,4-triazol-4-yl-propanoic acid. , 2013, , 199-203.		0
79	Spin state dependence of electrical conductivity of spin crossover materials. Chemical Communications, 2012, 48, 4163-4165.	4.1	140
80	Impact of ligand spacer and counter-anion in selected 1D iron(II) spin crossover coordination polymers. Hyperfine Interactions, 2012, 205, 69-73.	0.5	8
81	Weak cooperativity in selected iron(II) 1D coordination polymers. Hyperfine Interactions, 2012, 205, 75-79.	0.5	5
82	1D iron(II) spin crossover complexes with 1,2,4-triazol-4-yl-propanoic acid. Hyperfine Interactions, 2012, 205, 51-55.	0.5	8
83	Pressure effect investigated with first-order reversal-curve method on the spin-transition compounds [Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math>Zn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’	3.2	29
84	Interactions and reversal-field memory in complex magnetic nanowire arrays. Physical Review B, 2011, 84, .	3.2	56
85	Analysis of phase transitions in spin-crossover compounds by using atom â€“ phonon coupling model. Journal of Physics: Conference Series, 2011, 268, 012007.	0.4	11
86	Monte Carlo for spin crossover compounds. EPJ Web of Conferences, 2011, 14, 02004.	0.3	0
87	Metastable states at low temperature in spin crossover compounds in the framework of the atom-phonon coupling model. Polyhedron, 2011, 30, 3186-3188.	2.2	3
88	Metastable state of the photomagnetic Prussian blue analog K0.3Co[Fe(CN)6]0.77Â·3.6H2O investigated by various techniques. Physical Review B, 2011, 84, .	3.2	23
89	Size effect in spin-crossover systems investigated by FORC measurements, for surfacted [Fe(NH2-trz)3](Br)2Â·3H2O nanoparticles: reversible contributions and critical size. European Physical Journal B, 2011, 84, 439-449.	1.5	63
90	Crystal Structure, Charge Transport, and Magnetic Properties of MnSb₂Se₄. European Journal of Inorganic Chemistry, 2011, 2011, 3969-3977.	2.0	37

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91	Influence of Hydrogen Bonding on the Hysteresis Width in Iron(II) Spinâ€Crossover Complexes. European Journal of Inorganic Chemistry, 2011, 2011, 3193-3206.	2.0	100
92			