Igor Djerdj

List of Publications by Year in descending order

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102 papers	5,268 citations	76326 40 h-index	85541 71 g-index
106 all docs	106 docs citations	106 times ranked	7993 citing authors

#	Article	IF	Citations
1	One-minute synthesis of crystalline binary and ternary metal oxide nanoparticles. Chemical Communications, 2008, , 886-888.	4.1	295
2	Nanoparticle cluster gas sensor: Pt activated SnO₂ nanoparticles for NH₃ detection with ultrahigh sensitivity. Nanoscale, 2015, 7, 14872-14880.	5.6	284
3	Surfactant-assisted synthesis of CeO2 nanoparticles and their application in wastewater treatment. RSC Advances, 2012, 2, 12413.	3.6	186
4	Antimony-Doped SnO₂ Nanopowders with High Crystallinity for Lithium-Ion Battery Electrode. Chemistry of Materials, 2009, 21, 3202-3209.	6.7	172
5	Direct Lowâ€Temperature Synthesis of Rutile Nanostructures in Ionic Liquids. Small, 2007, 3, 1753-1763.	10.0	169
6	Structural investigations of nanocrystalline TiO2 samples. Journal of Alloys and Compounds, 2006, 413, 159-174.	5.5	165
7	Nonaqueous Synthesis of Uniform Indium Tin Oxide Nanocrystals and Their Electrical Conductivity in Dependence of the Tin Oxide Concentration. Chemistry of Materials, 2006, 18, 2848-2854.	6.7	157
8	Novel Mixed Phase SnO₂ Nanorods Assembled with SnO₂ Nanocrystals for Enhancing Gas-Sensing Performance toward Isopropanol Gas. Journal of Physical Chemistry C, 2014, 118, 9832-9840.	3.1	146
9	Niobium Doped TiO₂ with Mesoporosity and Its Application for Lithium Insertion. Chemistry of Materials, 2010, 22, 6624-6631.	6.7	127
10	Nanocrystalline NiMoO4 with an ordered mesoporous morphology as potential material for rechargeable thin film lithium batteries. Chemical Communications, 2012, 48, 6726.	4.1	125
11	Co-Doped ZnO nanoparticles: Minireview. Nanoscale, 2010, 2, 1096.	5.6	124
12	Nonaqueous Solâ€“Gel Synthesis of a Nanocrystalline InNbO₄ Visibleâ€Light Photocatalyst. Advanced Materials, 2007, 19, 2083-2086.	21.0	123
13	Polymerâ€Assisted Generation of Antimonyâ€Doped SnO₂ Nanoparticles with High Crystallinity for Application in Gas Sensors. Small, 2008, 4, 1656-1660.	10.0	121
14	Nonaqueous Synthesis of Manganese Oxide Nanoparticles, Structural Characterization, and Magnetic Properties. Journal of Physical Chemistry C, 2007, 111, 3614-3623.	3.1	120
15	Thermal Transformation of Metal Oxide Nanoparticles into Nanocrystalline Metal Nitrides Using Cyanamide and Urea as Nitrogen Source. Chemistry of Materials, 2007, 19, 3499-3505.	6.7	115
16	Diluted magnetic semiconductors: Mn/Co-doped ZnO nanorods as case study. Journal of Materials Chemistry, 2008, 18, 5208.	6.7	112
17	Microwave-Assisted Nonaqueous Solâ“Gel Chemistry for Highly Concentrated ZnO-Based Magnetic Semiconductor Nanocrystals. Journal of Physical Chemistry C, 2011, 115, 1484-1495.	3.1	111
18	Efficient and Stable FASnI₃ Perovskite Solar Cells with Effective Interface Modulation by Lowâ€Dimensional Perovskite Layer. ChemSusChem, 2019, 12, 5007-5014.	6.8	111

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19	Shape-Controlled CeO₂ Nanoparticles: Stability and Activity in the Catalyzed HCl Oxidation Reaction. ACS Catalysis, 2017, 7, 6453-6463.	11.2	109
20	Combustion synthesis of porous Pt-functionalized SnO₂ sheets for isopropanol gas detection with a significant enhancement in response. Journal of Materials Chemistry A, 2014, 2, 20089-20095.	10.3	106
21	Nonaqueous synthesis of metal oxide nanoparticles: Short review and doped titanium dioxide as case study for the preparation of transition metal-doped oxide nanoparticles. Journal of Solid State Chemistry, 2008, 181, 1571-1581.	2.9	94
22	Neodymium Dioxide Carbonate as a Sensing Layer for Chemoresistive CO₂ Sensing. Chemistry of Materials, 2009, 21, 5375-5381.	6.7	88
23	Soft-templating synthesis of mesoporous magnetic CuFe2O4 thin films with ordered 3D honeycomb structure and partially inverted nanocrystalline spinel domains. Chemical Communications, 2012, 48, 4471.	4.1	81
24	Efficient microwave-assisted synthesis of LiFePO4 mesocrystals with high cycling stability. Journal of Materials Chemistry, 2009, 19, 5125.	6.7	80
25	Morphology-controlled nonaqueous synthesis of anisotropic lanthanum hydroxide nanoparticles. Journal of Solid State Chemistry, 2007, 180, 2154-2165.	2.9	76
26	A high-performance n-butanol gas sensor based on ZnO nanoparticles synthesized by a low-temperature solvothermal route. RSC Advances, 2015, 5, 54372-54378.	3.6	74
27	Low wavenumber Raman scattering of nanoparticles and nanocomposite materials. Journal of Raman Spectroscopy, 2007, 38, 647-659.	2.5	73
28	Long cycle life of CoMn₂O₄ lithium ion battery anodes with high crystallinity. Journal of Materials Chemistry A, 2015, 3, 14759-14767.	10.3	72
29	Ionicâ€Liquid Synthesis Route of TiO₂(B) Nanoparticles for Functionalized Materials. Chemistry - A European Journal, 2011, 17, 775-779.	3.3	65
30	Photocatalytic degradation properties of Ni(OH)2 nanosheets/ZnO nanorods composites for azo dyes under visible-light irradiation. Ceramics International, 2014, 40, 57-65.	4.8	62
31	Solvothermal and surfactant-free synthesis of crystalline Nb2O5, Ta2O5, HfO2, and Co-doped HfO2 nanoparticles. Physical Chemistry Chemical Physics, 2010, 12, 15537.	2.8	61
32	Nonaqueous Synthesis of Nanocrystalline Indium Oxide and Zinc Oxide in the Oxygen-Free Solvent Acetonitrile. Crystal Growth and Design, 2007, 7, 113-116.	3.0	60
33	Toward a Low-Temperature Solâ˜'Gel Synthesis of TiO₂(B) Using Mixtures of Surfactants and Ionic Liquids. Chemistry of Materials, 2010, 22, 3502-3510.	6.7	56
34	Influence of mechanochemical processing to luminescence properties in Y2O3 powder. Journal of Alloys and Compounds, 2008, 456, 313-319.	5.5	54
35	Porous NiO nanosheets self-grown on alumina tube using a novel flash synthesis and their gas sensing properties. RSC Advances, 2015, 5, 4880-4885.	3.6	52
36	Controllable synthesis and change of emission color from green to orange of ZnO quantum dots using different solvents. New Journal of Chemistry, 2015, 39, 2881-2888.	2.8	50

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37	An analysis of evolution of grain size-lattice parameters dependence in nanocrystalline TiO2 anatase. Materials Science and Engineering C, 2002, 19, 85-89.	7.3	49
38	Preparation of a large Mesoporous CeO2 with crystalline walls using PMMA colloidal crystal templates. Colloid and Polymer Science, 2006, 285, 1-9.	2.1	48
39	Nonaqueous Synthesis of Colloidal ZnGa2O4Nanocrystals and Their Photoluminescence Properties. Chemistry of Materials, 2007, 19, 5830-5832.	6.7	45
40	Hydrothermal growth of ZnO nanorods on Zn substrates and their application in degradation of azo dyes under ambient conditions. CrystEngComm, 2014, 16, 7761-7770.	2.6	42
41	Oxygen Self-Doping in Hollandite-Type Vanadium Oxyhydroxide Nanorods. Journal of the American Chemical Society, 2008, 130, 11364-11375.	13.7	39
42	IL-assisted synthesis of V2O5 nanocomposites and VO2 nanosheets. Journal of Materials Chemistry, 2008, 18, 5761.	6.7	38
43	Morphology, Microstructure, and Magnetic Properties of Ordered Large-Pore Mesoporous Cadmium Ferrite Thin Film Spin Glasses. Inorganic Chemistry, 2013, 52, 3744-3754.	4.0	38
44	Generalized Nonaqueous Solâ€“Gel Synthesis of Different Transitionâ€Metal Niobate Nanocrystals and Analysis of the Growth Mechanism. Chemistry - an Asian Journal, 2008, 3, 746-752.	3.3	37
45	Oxygen storage capacity versus catalytic activity of ceriaâ€“zirconia solid solutions in CO and HCl oxidation. Catalysis Science and Technology, 2019, 9, 2163-2172.	4.1	37
46	Structural Characterization of a Nanocrystalline Inorganicâ^'Organic Hybrid with Fiberlike Morphology and One-Dimensional Antiferromagnetic Properties. Chemistry of Materials, 2009, 21, 3356-3369.	6.7	36
47	Evidence from HRTEM image processing, XRD and EDS on nanocrystalline iron-doped titanium oxide powders. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 85, 55-63.	3.5	34
48	Catalytic HCl oxidation reaction: Stabilizing effect of Zr-doping on CeO2 nano-rods. Applied Catalysis B: Environmental, 2018, 239, 628-635.	20.2	34
49	Nanostructure of thin silicon films by combining HRTEM, XRD and Raman spectroscopy measurements and the implication to the optical properties. Applied Surface Science, 2008, 254, 2748-2754.	6.1	32
50	XRD line profile analysis of tungsten thin films. Vacuum, 2005, 80, 151-158.	3.5	30
51	Synthesis and full characterization of the phase-pure pyrochlore Ce2Zr2O7 and the Î²-Ce2Zr2O8 phases. Applied Catalysis B: Environmental, 2016, 197, 23-34.	20.2	28
52	Triple perovskite-based triboelectric nanogenerator: a facile method of energy harvesting and self-powered information generator. Materials Today Energy, 2021, 20, 100639.	4.7	28
53	Structure and electrical conductivity of porous zirconium titanate ceramics produced by mechanochemical treatment and sintering. Journal of Alloys and Compounds, 2009, 479, 525-531.	5.5	26
54	Layered hybrid organicâ€“inorganic nanobelts exhibiting a field-induced magnetic transition. Physical Chemistry Chemical Physics, 2009, 11, 6166.	2.8	25

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55	Combustion synthesized hierarchically porous WO3 for selective acetone sensing. Materials Chemistry and Physics, 2016, 184, 155-161.	4.0	25
56	Transmission electron microscopy studies of nanostructured TiO2 films on various substrates. Vacuum, 2005, 80, 371-378.	3.5	23
57	A facial method to synthesize Ni(OH)2 nanosheets for improving the adsorption properties of Congo red in aqueous solution. Powder Technology, 2013, 235, 121-125.	4.2	23
58	Nanocrystalline Antiferromagnetic High-Î° Dielectric Sr2NiMO6 (M = Te, W) with Double Perovskite Structure Type. Molecules, 2020, 25, 3996.	3.8	23
59	Bandgap Engineering in Novel Fluoriteâ€Type Rare Earth Highâ€Entropy Oxides (REâ€HEOs) with Computational and Experimental Validation for Photocatalytic Water Splitting Applications. Advanced Sustainable Systems, 2022, 6, .	5.3	22
60	Preparation of nanostructured ZrTiO4 by solid state reaction in equimolar mixture of TiO2 and ZrO2. Crystal Research and Technology, 2006, 41, 1076-1081.	1.3	21
61	Mechanism of ZrTiO4 Synthesis by Mechanochemical Processing of TiO2 and ZrO2. Journal of the American Ceramic Society, 2006, 89, 060427083300025-???.	3.8	20
62	In Situ Study of the Oxygen-Induced Transformation of Pyrochlore Ce₂Zr₂O_{7+x} to the Î°-Ce₂Zr₂O₈ Phase. Chemistry of Materials, 2017, 29, 9218-9226.	6.7	20
63	CeO₂ Wetting Layer on ZrO₂ Particle with Sharp Solid Interface as Highly Active and Stable Catalyst for HCl Oxidation Reaction. ACS Catalysis, 2019, 9, 10680-10693.	11.2	20
64	The double role of p-toluenesulfonic acid in the formation of ZnO particles with different morphologies. CrystEngComm, 2010, 12, 1862.	2.6	19
65	Rational Solâ€“Gel-Based Synthesis Design and Magnetic, Dielectric, and Optical Properties Study of Nanocrystalline Sr₃Co₂WO₉ Triple Perovskite. Journal of Physical Chemistry C, 2020, 124, 12794-12807.	3.1	19
66	Correlation Between the Microstructure and the Electrical Properties of ZrTiO₄ Ceramics. Journal of the American Ceramic Society, 2008, 91, 178-186.	3.8	18
67	The stabilizing effect of water and high reaction temperatures on the CeO2-catalyst in the harsh HCl oxidation reaction. Journal of Catalysis, 2018, 357, 257-262.	6.2	18
68	Enhancing phosphate removal from water by using ordered mesoporous silica loaded with samarium oxide. Analytical Methods, 2015, 7, 10052-10060.	2.7	17
69	Graphene-oxide-wrapped ZnMn₂O₄ as a high performance lithium-ion battery anode. Nanotechnology, 2017, 28, 455401.	2.6	17
70	Mixed Ru_xIr_{1â€“x}O₂ Oxide Catalyst with Well-Defined and Varying Composition Applied to CO Oxidation. Journal of Physical Chemistry C, 2020, 124, 18670-18683.	3.1	17
71	NiO nanosheets assembled into hollow microspheres for highly sensitive and fast-responding VOC sensors. RSC Advances, 2015, 5, 80786-80792.	3.6	14
72	Facile synthesis of CuO micro-sheets over Cu foil in oxalic acid solution and their sensing properties towards n-butanol. Journal of Materials Chemistry C, 2016, 4, 985-990.	5.5	14

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73	Large-Pore Mesoporous Ho3Fe5O12 Thin Films with a Strong Room-Temperature Perpendicular Magnetic Anisotropy by Solâ€“Gel Processing. Chemistry of Materials, 2014, 26, 2337-2343.	6.7	13
74	Ionic liquid- and surfactant-controlled crystallization of WO₃ films. Physical Chemistry Chemical Physics, 2015, 17, 18138-18145.	2.8	13
75	Aqueous Solâ€“Gel Route toward Selected Quaternary Metal Oxides with Single and Double Perovskite-Type Structure Containing Tellurium. Crystal Growth and Design, 2016, 16, 2535-2541.	3.0	12
76	Structural characterization and magnetic property determination of nanocrystalline Ba₃Fe₂WO₉ and Sr₃Fe₂WO₉ perovskites prepared by a modified aqueous solâ€“gel route. CrystEngComm, 2019, 21, 218-227.	2.6	12
77	The influence of local structure of nanocrystalline Ni films on the catalytic activityâ˜†. Electrochemistry Communications, 2007, 9, 299-302.	4.7	11
78	Nanocrystalline triple perovskite compounds A₃Fe₂BO₉ (A = Sr,) Tj ETQq0 0 0 rgBT /Overlock 10 Materials Chemistry Frontiers, 2022, 6, 1116-1128.	5.9	11
79	Mesoporous MgTa₂O₆ thin films with enhanced photocatalytic activity: On the interplay between crystallinity and mesostructure. Beilstein Journal of Nanotechnology, 2012, 3, 123-133.	2.8	9
80	Structural analysis of amorphous-nanocrystalline silicon thin films by grazing incidence X-ray diffraction. Nuclear Instruments & Methods in Physics Research B, 2012, 284, 78-82.	1.4	9
81	Hydrothermal synthesis of single crystal CoAs₂O₄and NiAs₂O₄compounds and their magnetic properties. RSC Advances, 2015, 5, 18280-18287.	3.6	9
82	Impact of Aliovalent/Isovalent Ions (Gd, Zr, Pr, and Tb) on the Catalytic Stability of Mesoporous Ceria in the HCl Oxidation Reaction. ACS Applied Nano Materials, 2020, 3, 7406-7419.	5.0	9
83	Sol-Gel Synthesis of Ceria-Zirconia-Based High-Entropy Oxides as High-Promotion Catalysts for the Synthesis of 1,2-Diketones from Aldehyde. Molecules, 2021, 26, 6115.	3.8	9
84	Interplay between the structural and magnetic probes in the elucidation of the structure of a novel 2D layered [V4O4(OH)2(O2CC6H4CO2)4]Â·DMF. Dalton Transactions, 2012, 41, 581-589.	3.3	8
85	Sustainable and surfactant-free high-throughput synthesis of highly dispersible zirconia nanocrystals. Journal of Materials Chemistry A, 2017, 5, 16296-16306.	10.3	8
86	sReactivation of CeO 2 â€based Catalysts in the HCl Oxidation Reaction: In situ Quantification of the Degree of Chlorination and Kinetic Modeling. ChemCatChem, 2020, 12, 5511-5522.	3.7	8
87	Structural study of nanocrystalline nickel thin films. Journal of Applied Crystallography, 2007, 40, s377-s382.	4.5	7
88	Transmission electron microscopy study of carbon nanophases produced by ion beam implantation. Materials Science and Engineering C, 2006, 26, 1202-1206.	7.3	6
89	Two-Dimensional Atomic Crystals: Paving New Ways for Nanoelectronics. Journal of Electronic Materials, 2015, 44, 4080-4097.	2.2	6
90	Single crystal growth, structural characterization and magnetic properties study of an antiferromagnetic trinuclear iron(III) acetate complex with uncoordinated hexamine. Inorganica Chimica Acta, 2021, 520, 120292.	2.4	6

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91	Nanocrystalline hybrid inorganicâ€“organic one-dimensional chain systems tailored with 2- and 3-phenyl ring monocarboxylic acids. Journal of Materials Chemistry, 2012, 22, 10255.	6.7	5
92	Determination of Nanosize Particle Distribution by Low Frequency Raman Scattering: Comparison to Electron Microscopy. Lecture Notes in Physics, 2002, , 24-36.	0.7	4
93	Structural analysis of monolayered and bilayered SnO2 thin films. Surface and Coatings Technology, 2012, 211, 24-28.	4.8	4
94	Functionalization of plasmonic metamaterials utilizing metalâ€“organic framework thin films. Physica Scripta, 2012, T149, 014051.	2.5	3
95	Structural Refinement of Nanocrystalline TiO2 Samples. , 2006, , 497-501.		2
96	The influence of post deposition plasma treatment on SnOx structural properties. Vacuum, 2007, 82, 266-269.	3.5	2
97	Implantation conditions for diamond nanocrystal formation in amorphous silica. Journal of Applied Physics, 2008, 104, 034315.	2.5	2
98	Chromium coordination compounds with bis(3,5-dimethylpyrazol-1-yl)acetic acid or its anion. Polyhedron, 2014, 70, 119-124.	2.2	2
99	Ionic liquid-mediated low-temperature formation of hexagonal titanium-oxyhydroxyfluoride particles. CrystEngComm, 2020, 22, 1568-1576.	2.6	2
100	Size reduction-induced properties modifications of antiferromagnetic dielectric nanocrystalline Ba2NiMO6 (M = W, Te) double perovskites. Oxford Open Materials Science, 2020, 1, .	1.8	2
101	Synthesis of Ti(OH)OFâ€‰â‹…â€‰0.66 H 2 O in Imidazoliumâ€based Ionic Liquids. ChemistryOpen, 2021, 10, 181–188.	1.9	1
102	Metal Oxide Nanocrystals: Building Blocks for Mesostructures and Precursors for Metal Nitrides. Materials Research Society Symposia Proceedings, 2007, 1007, 1.	0.1	0