Igor A Kasatkin

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2196592/publications.pdf

Version: 2024-02-01

76	4,717	186265 28	95266 68
papers	citations	h-index	g-index

79	79	79	5575
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Active Site of Methanol Synthesis over Cu/ZnO/Al ₂ O ₃ Industrial Catalysts. Science, 2012, 336, 893-897.	12.6	2,018
2	Role of Lattice Strain and Defects in Copper Particles on the Activity of Cu/ZnO/Al₂O₃ Catalysts for Methanol Synthesis. Angewandte Chemie - International Edition, 2007, 46, 7324-7327.	13.8	223
3	Kinetics of deactivation on Cu/ZnO/Al2O3 methanol synthesis catalysts. Applied Catalysis A: General, 2015, 502, 262-270.	4.3	202
4	Phase-Pure Cu,Zn,Al Hydrotalcite-like Materials as Precursors for Copper rich Cu/ZnO/Al₂O₃ Catalysts. Chemistry of Materials, 2010, 22, 386-397.	6.7	170
5	Comparative study of hydrotalcite-derived supported Pd2Ga and PdZn intermetallic nanoparticles as methanol synthesis and methanol steam reforming catalysts. Journal of Catalysis, 2012, 293, 27-38.	6.2	135
6	The Microstructure of Copper Zinc Oxide Catalysts: Bridging the Materials Gap. Angewandte Chemie - International Edition, 2005, 44, 4704-4707.	13.8	123
7	Counting of Oxygen Defects versus Metal Surface Sites in Methanol Synthesis Catalysts by Different Probe Molecules. Angewandte Chemie - International Edition, 2014, 53, 7043-7047.	13.8	119
8	Wet spinning of fibers made of chitosan and chitin nanofibrils. Carbohydrate Polymers, 2014, 108, 176-182.	10.2	114
9	Intermetallic Compound Pd2Ga as a Selective Catalyst for the Semi-Hydrogenation of Acetylene: From Model to High Performance Systems. Journal of Physical Chemistry C, 2011, 115, 1368-1374.	3.1	109
10	Microstructural characterization of Cu/ZnO/Al2O3 catalysts for methanol steam reformingâ€"A comparative study. Applied Catalysis A: General, 2008, 348, 153-164.	4.3	105
11	Cuâ€Based Catalyst Resulting from a Cu,Zn,Al Hydrotalciteâ€Like Compound: A Microstructural, Thermoanalytical, and Inâ€…Situ XAS Study. Chemistry - A European Journal, 2014, 20, 3782-3792.	3.3	89
12	Continuous Coprecipitation of Catalysts in a Micromixer: Nanostructured Cu/ZnO Composite for the Synthesis of Methanol. Angewandte Chemie - International Edition, 2003, 42, 3815-3817.	13.8	84
13	Inâ€…Situ Study of Catalytic Processes: Neutron Diffraction of a Methanol Synthesis Catalyst at Industrially Relevant Pressure. Angewandte Chemie - International Edition, 2013, 52, 5166-5170.	13.8	68
14	The effect of Al-doping on ZnO nanoparticles applied as catalyst support. Physical Chemistry Chemical Physics, 2013, 15, 1374-1381.	2.8	66
15	Knowledge-based development of a nitrate-free synthesis route for Cu/ZnO methanol synthesis catalysts via formate precursors. Chemical Communications, 2011, 47, 1701.	4.1	62
16	Surface dynamics of the intermetallic catalyst Pd2Ga, Part II â€“ Reactivity and stability in liquid-phase hydrogenation of phenylacetylene. Journal of Catalysis, 2014, 309, 221-230.	6.2	62
17	The Potential of Microstructural Optimization in Metal/Oxide Catalysts: Higher Intrinsic Activity of Copper by Partial Embedding of Copper Nanoparticles. ChemCatChem, 2010, 2, 816-818.	3.7	49
18	Influence of grain boundary state on electrical resistivity of ultrafine grained aluminium. Philosophical Magazine, 2016, 96, 2429-2444.	1.6	41

#	Article	IF	Citations
19	Dynamic Surface Processes of Nanostructured Pd2Ga Catalysts Derived from Hydrotalcite-Like Precursors. ACS Catalysis, 2014, 4, 2048-2059.	11.2	40
20	Green method for preparation of cellulose nanocrystals using deep eutectic solvent. Cellulose, 2020, 27, 4305-4317.	4.9	40
21	Surface dynamics of the intermetallic catalyst Pd2Ga, Part I â€“ Structural stability in UHV and different gas atmospheres. Journal of Catalysis, 2014, 309, 209-220.	6.2	39
22	Effect of chitin nanofibrils on electrospinning of chitosan-based composite nanofibers. Carbohydrate Polymers, 2018, 194, 260-266.	10.2	37
23	Microwave-hydrothermal synthesis and characterization of nanostructured copper substituted ZnM2O4 (M = Al, Ga) spinels as precursors for thermally stable Cu catalysts. Nanoscale, 2012, 4, 2018.	5.6	34
24	Microstructural and Defect Analysis of Metal Nanoparticles in Functional Catalysts by Diffraction and Electron Microscopy: The Cu/ZnO Catalyst for Methanol Synthesis. Topics in Catalysis, 2014, 57, 188-206.	2.8	33
25	Capacitance properties and structure of electroconducting hydrogels based on copoly(aniline â€“) Tj ETQq1 1 0.784314 rgBT /Overlo	7.8	33
26	ZrO₂. Journal of Materials Science, 2004, 39, 2151-2157.	3.7	32
27	A Study of the Influence of Composition on the Microstructural Properties of ZnO/Al₂O₃ Mixed Oxides. European Journal of Inorganic Chemistry, 2009, 2009, 910-921.	2.0	32
28	Ternary and quaternary Cr or Ga-containing ex-LDH catalystsâ€”Influence of the additional oxides onto the microstructure and activity of Cu/ZnAl2O4 catalysts. Catalysis Today, 2015, 246, 92-100.	4.4	27
29	Ligand-Dependent Morphology and Optical Properties of Lead Sulfide Quantum Dot Superlattices. Journal of Physical Chemistry C, 2016, 120, 25061-25067.	3.1	23
30	Facile synthesis of LaF3 strained 2D nanoparticles and microtubes at solutionâ€“gas interface. Journal of Fluorine Chemistry, 2015, 180, 117-121.	1.7	22
31	Impregnated and Co-precipitated Pdâ€“Ga2O3, Pdâ€“In2O3 and Pdâ€“Ga2O3â€“In2O3 Catalysts: Influence of the Microstructure on the CO2 Selectivity in Methanol Steam Reforming. Catalysis Letters, 2018, 148, 3062-3071.	2.6	21
32	Formation of oriented LaF 3 and LaF 3 :Eu 3+ nanocrystals at the gas â^' Solution interface. Journal of Fluorine Chemistry, 2017, 200, 18-23.	1.7	18
33	Orientation-controlled, low-temperature plasma growth and applications of h-BN nanosheets. Nano Research, 2019, 12, 91-99.	10.4	17
34	Cu/ZnO and Cu/ZrO2interactions studied by contact angle measurement with TEM. Physical Chemistry Chemical Physics, 2007, 9, 878-883.	2.8	16
35	Influence of the microstructure on the physicomechanical properties of the aluminum alloy Alâ€“Mgâ€“Si nanostructured under severe plastic deformation. Physics of the Solid State, 2015, 57, 2051-2058.	0.6	15
36	Supramolecular structure of chitin nanofibrils. Polymer Science - Series A, 2015, 57, 52-57.	1.0	14

#	Article	IF	Citations
37	Electroconductive fibrous mat prepared by electrospinning of polyacrylamide-g-polyaniline copolymers as electrode material for supercapacitors. Journal of Materials Science, 2019, 54, 4859-4873.	3.7	14
38	Facile synthesis of scandium fluoride oriented single-crystalline rods and urchin-like structures by a gasâ€“solution interface technique. CrystEngComm, 2017, 19, 5412-5416.	2.6	13
39	Structureâ€“Property Relationship of Polyetherimide Fibers Filled with Carbon Nanoparticles. ACS Omega, 2020, 5, 10680-10686.	3.5	11
40	Kinetics of Mixed Crystal K2(SO4, CrO4) Growth from Aqueous Solution. Crystal Research and Technology, 1995, 30, 659-666.	1.3	9
41	Structure, optical properties and visible-light-induced photochemical activity of nanocrystalline ZnO films deposited by atomic layer deposition onto Si(100). Thin Solid Films, 2014, 573, 128-133.	1.8	9
42	Thermal stability of UV light emitting boron nitride nanowalls. Materials and Design, 2017, 117, 239-247.	7.0	9
43	Flower-like silver nanocrystals: facile synthesis via a gasâ€“solution interface technique. Journal of Materials Science, 2018, 53, 8161-8169.	3.7	9
44	Strong negative thermal expansion in the hexagonal polymorph of ScF₃. CrystEngComm, 2018, 20, 2768-2771.	2.6	9
45	X-ray diffraction study of vertically aligned layers of h-BN, obtained by PECVD from borazine and ammonia or helium mixtures. Journal of Structural Chemistry, 2015, 56, 1173-1175.	1.0	8
46	Structural aspects of mechanical properties of i<scp>PP</scp>â€based composites. I. Composite i<scp>PP</scp> fibers with <scp>VGCF</scp> nanofiller. Journal of Applied Polymer Science, 2015, 132, .	2.6	8
47	Long-term electrochemical stability of polyaniline- and polypyrrole-based hydrogels. Chemical Papers, 2021, 75, 5103-5112.	2.2	8
48	Interaction of Polyaniline with Surface of Carbon Steel. International Journal of Polymer Science, 2017, 2017, 1-9.	2.7	7
49	Structure evolution and mechanical properties of beryllium foils subjected to cold rolling and high-vacuum annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 750, 60-69.	5.6	7
50	Highâ€performance crystallized composite carbon nanoparticles/polyimide fibers. Journal of Applied Polymer Science, 2022, 139, .	2.6	7
51	Effect of the annealing temperature and time of the particle size of tin dioxide. Russian Journal of General Chemistry, 2015, 85, 208-210.	0.8	6
52	Novel single-source precursors for SiB_xC_yN_z film deposition. New Journal of Chemistry, 2017, 41, 11926-11933.	2.8	6
53	Tourmalines pyroelectric effect depending on the chemical composition and cation oxidation state. Journal of Solid State Chemistry, 2021, 303, 122512.	2.9	6
54	Heterogeneous Catalysis under pressure -In-situneutron diffraction under industrial conditions. Journal of Physics: Conference Series, 2012, 340, 012053.	0.4	5

#	Article	IF	Citations
55	Selective formation of hydroxyapatite layers on titanium dioxide. Russian Journal of Applied Chemistry, 2014, 87, 1591-1598.	0.5	5
56	Interferometric Study of MgSO4Â·7H2O Single Crystal Growth Kinetics from Solution. Crystal Research and Technology, 2002, 37, 193-206.	1.3	4
57	Vertically aligned layers of hexagonal boron nitride: PECVD synthesis from triethylaminoborane and structural features. Journal of Structural Chemistry, 2017, 58, 1018-1024.	1.0	4
58	3D superstructures with an orthorhombic lattice assembled by colloidal PbS quantum dots. Nanoscale, 2018, 10, 8313-8319.	5.6	4
59	Effect of Thermal Treatment on the Structure and Properties of Hydroxyapatite. Russian Journal of Applied Chemistry, 2018, 91, 368-374.	0.5	4
60	X-ray studies of aluminum alloy of the Al-Mg-Si system subjected to SPD processing. IOP Conference Series: Materials Science and Engineering, 2014, 63, 012087.	0.6	3
61	Inductive effect of crystalline nucleus on the structure of its local environment in the process of quartz glass crystallization. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2015, 119, 955-968.	0.6	3
62	Influence of low-frequency vibrations on the structure of amorphous Ti40.7Hf9.5Ni44.8Cu5 alloy. Materials Letters, 2017, 209, 231-234.	2.6	3
63	Anisotropic crystallite size distributions in LiFePO4 powders. RSC Advances, 2021, 11, 13799-13805.	3.6	3
64	Investigation of Polyetherimide Melt-Extruded Fibers Modified by Carbon Nanoparticles. Materials, 2021, 14, 7251.	2.9	3
65	Solid state reaction of preparation of chromium and iron niobates with the structure of double perovskite. Russian Journal of General Chemistry, 2015, 85, 756-757.	0.8	2
66	Study into the properties of TiN/WN multilayer nanocoatings prepared via magnetron sputtering. Journal of Surface Investigation, 2017, 11, 186-189.	0.5	2
67	On the in-depth density distribution of layered assemblies of Au nanoparticles on planar interfaces. Chemical Physics Letters, 2018, 706, 601-606.	2.6	2
68	Effect of Î±-Fe2O3 nanoparticles on the mechanism of charge storage in polypyrrole-based hydrogel. Polymer Bulletin, 2021, 78, 2389-2404.	3.3	2
69	Morphological Transformation in Polymer Composite Materials Filled with Carbon Nanoparticles: Part 1â€”SEM and XRD Investigations. Materials, 2022, 15, 3531.	2.9	2
70	HRTEM study of Cu/ZrO2 catalyst. An evidence of a new perovskite-like oxide ZrCuO3. Journal of Materials Science Letters, 2003, 22, 335-337.	0.5	1
71	Changes in the fine structure of the polymeric nanocomposites according to the shape of nanoparticles. AIP Conference Proceedings, 2016, , .	0.4	1
72	Effect of induced thermal instability on the growth of mixed crystals from aqueous solution: determination of effective supersaturation and solution composition at the interface. Journal of Crystal Growth, 1997, 182, 111-115.	1.5	0

#	Article	IF	Citations
73	Growth Rate anisotropy of the K2(S,Cr)O4 Mixed Crystals Grown from Aqueous Solution. Crystal Research and Technology, 1998, 33, 435-439.	1.3	0
74	Title is missing!. Journal of Structural Chemistry, 2002, 43, 118-124.	1.0	0
75	The Effect of Ammonium Chloride on the Structure of Hydroxyapatite Nanoparticles and the Proliferative Activity of Mesenchymal Stromal Cells. Technical Physics, 2020, 65, 1530-1534.	0.7	0
76	Characteristics of the formation and composition of AlxGa1-xN/AlN/por-Si/Si(111) heterostructures grown using a porous silicon buffer layer. Kondensirovannye Sredy Mezhfaznye Granitsy, 2022, 24, 51-58.	0.3	0