

Andris Āutka

List of Publications by Year in descending order

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papers

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#	ARTICLE	IF	CITATIONS
1	Membrane-less amphoteric decoupled water electrolysis using WO_3 and $Ni(OH)_2$ auxiliary electrodes. <i>Energy and Environmental Science</i> , 2022, 15, 2021-2028.	15.6	16
2	Photochromic TiO_2 /PEGDA organogels. <i>Photochemical and Photobiological Sciences</i> , 2022, 21, 545-555.	1.6	4
3	Bio-inspired Macromolecular Ordering of Elastomers for Enhanced Contact Electrification and Triboelectric Energy Harvesting. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	7
4	Visible-Light Active Flexible and Durable Photocatalytic Antibacterial Ethylene-co-vinyl Acetate-Ag/AgCl/ \pm - Fe_2O_3 Composite Coating. <i>Nanomaterials</i> , 2022, 12, 1984.	1.9	4
5	Low-density PDMS foams by controlled destabilization of thixotropic emulsions. <i>Journal of Colloid and Interface Science</i> , 2022, 626, 265-275.	5.0	8
6	CO_2 turned into a nitrogen doped carbon catalyst for fuel cells and metal-air battery applications. <i>Green Chemistry</i> , 2021, 23, 4435-4445.	4.6	23
7	Triboelectrification of nanocomposites using identical polymer matrixes with different concentrations of nanoparticle fillers. <i>Journal of Materials Chemistry A</i> , 2021, 9, 8984-8990.	5.2	32
8	Aerogel-like silica powders by combustion of sol-gel derived alcogels. <i>Microporous and Mesoporous Materials</i> , 2021, 315, 110895.	2.2	7
9	Antibacterial Activity of Positively and Negatively Charged Hematite (\pm - Fe_2O_3) Nanoparticles to <i>Escherichia coli</i> , <i>Staphylococcus aureus</i> and <i>Vibrio fischeri</i> . <i>Nanomaterials</i> , 2021, 11, 652.	1.9	30
10	Photodoping-Inspired Room-Temperature Gas Sensing by Anatase TiO_2 Quantum Dots. <i>ACS Applied Nano Materials</i> , 2021, 4, 2522-2527.	2.4	17
11	Tribovoltaic Device Based on the W/WO_3 Schottky Junction Operating through Hot Carrier Extraction. <i>Journal of Physical Chemistry C</i> , 2021, 125, 14212-14220.	1.5	14
12	Triboelectric Laminates with Volumetric Electromechanical Response for Mechanical Energy Harvesting. <i>Advanced Materials Technologies</i> , 2021, 6, 2100163.	3.0	7
13	Deposition of low-density thick silica films from burning sol-gel derived alcogels. <i>Heliyon</i> , 2021, 7, e07675.	1.4	1
14	Rapid Catalytic Water Disinfection from Earth Abundant $Ca_2Fe_2O_5$ Brownmillerite. <i>Advanced Sustainable Systems</i> , 2021, 5, 2100130.	2.7	5
15	Probing Contact Electrification: A Cohesively Sticky Problem. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 44935-44947.	4.0	31
16	Dramatic increase in polymer triboelectrification by transition from a glassy to rubbery state. <i>Materials Horizons</i> , 2020, 7, 520-523.	6.4	13
17	The Adhesion-Enhanced Contact Electrification and Efficiency of Triboelectric Nanogenerators. <i>Macromolecular Materials and Engineering</i> , 2020, 305, 1900638.	1.7	21
18	Behavior of nanocomposite consisting of manganese ferrite particles and atomic layer deposited bismuth oxide chloride film. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 498, 166167.	1.0	6

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19	Photoelectrochemical Bisphenol S Sensor Based on ZnO Nanorods Modified by Molecularly Imprinted Polypyrrole. <i>Macromolecular Chemistry and Physics</i> , 2020, 221, 1900232.	1.1	53
20	Identifying Iron-Bearing Nanoparticle Precursor for Thermal Transformation into the Highly Active Hematite Photo-Fenton Catalyst. <i>Catalysts</i> , 2020, 10, 778.	1.6	5
21	Influence of PDA Coating on the Structural, Optical and Surface Properties of ZnO Nanostructures. <i>Nanomaterials</i> , 2020, 10, 2438.	1.9	21
22	Strong, Rapid, and Reversible Photochromic Response of Nb Doped TiO ₂ Nanocrystal Colloids in Hole Scavenging Media. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 57609-57618.	4.0	20
23	Matching the Directions of Electric Fields from Triboelectric and Ferroelectric Charges in Nanogenerator Devices for Boosted Performance. <i>IScience</i> , 2020, 23, 101011.	1.9	21
24	Contact electrification between identical polymers as the basis for triboelectric/flexoelectric materials. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 13299-13305.	1.3	24
25	Permanent photodoping of plasmonic gallium-ZnO nanocrystals. <i>Nanoscale</i> , 2020, 12, 6624-6629.	2.8	6
26	Kinetics of TiO ₂ photochromic response in different hole scavenging solvents. <i>Photochemical and Photobiological Sciences</i> , 2020, 19, 1072-1077.	1.6	17
27	Measuring Piezoelectric Output – Fact or Friction?. <i>Advanced Materials</i> , 2020, 32, e2002979.	11.1	58
28	Visible Light-Driven p-Type Semiconductor Gas Sensors Based on CaFe ₂ O ₄ Nanoparticles. <i>Sensors</i> , 2020, 20, 850.	2.1	16
29	Solid-state supercapacitor application for pressure sensing. <i>Applied Surface Science</i> , 2019, 474, 91-96.	3.1	14
30	Magnetic and optical properties in degenerated transition metal and Ga co-substituted ZnO nanocrystals. <i>Journal of Alloys and Compounds</i> , 2019, 805, 1191-1199.	2.8	4
31	The role of intermolecular forces in contact electrification on polymer surfaces and triboelectric nanogenerators. <i>Energy and Environmental Science</i> , 2019, 12, 2417-2421.	15.6	77
32	Stronger Reductive Environment in Solvothermal Synthesis Leads to Improved Ga Doping Efficiency in ZnO Nanocrystals and Enhanced Plasmonic Absorption. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900335.	0.8	0
33	Sol-gel auto-combustion synthesis of Ca ₂ Fe ₂ O ₅ brownmillerite nanopowders and thin films for advanced oxidation photoelectrochemical water treatment in visible light. <i>Journal of Environmental Chemical Engineering</i> , 2019, 7, 103224.	3.3	14
34	Identification of Active Sites for Oxygen Reduction Reaction on Nitrogen- and Sulfur-Codoped Carbon Catalysts. <i>Journal of Physical Chemistry C</i> , 2019, 123, 16065-16074.	1.5	20
35	Spectrometric analysis of inner divertor materials of JET carbon and ITER-like walls. <i>Fusion Engineering and Design</i> , 2019, 146, 82-86.	1.0	4
36	PVA Hydrogel Electrolyte and Porous Polyisoprene Carbon Nanostructure Composite Based Pressure Sensitive Supercapacitor. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 500, 012018.	0.3	2

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37	Hybrid Tribo-Piezo-Electric Nanogenerator with Unprecedented Performance Based on Ferroelectric Composite Contacting Layers. <i>ACS Applied Energy Materials</i> , 2019, 2, 4027-4032.	2.5	37
38	Visible light to switch-on desorption from goethite. <i>Nanoscale</i> , 2019, 11, 3794-3798.	2.8	10
39	Photocatalytic Nanoheterostructures and Chemically Bonded Junctions Made by Solution-Based Approaches. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2019, 44, 239-263.	6.8	13
40	In situ investigation of poly(3,4-ethylenedioxythiophene) film growth during liquid phase deposition polymerization. <i>Thin Solid Films</i> , 2018, 653, 274-283.	0.8	3
41	Yttrium-doped hematite photoanodes for solar water splitting: Photoelectrochemical and electronic properties. <i>Ceramics International</i> , 2018, 44, 13218-13225.	2.3	19
42	Aqueous synthesis of Z-scheme photocatalyst powders and thin-film photoanodes from earth abundant elements. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 2606-2615.	3.3	8
43	Inversely polarised ferroelectric polymer contact electrodes for triboelectric-like generators from identical materials. <i>Energy and Environmental Science</i> , 2018, 11, 1437-1443.	15.6	43
44	Triboelectric nanogenerator based on immersion precipitation derived highly porous ethyl cellulose. <i>Journal of Electrostatics</i> , 2018, 92, 1-5.	1.0	30
45	Humidity Influence on Optical Properties of Nanowire Colloids with Modulated Visual Response to Electrostatic Charge. <i>Colloids and Interface Science Communications</i> , 2018, 22, 34-37.	2.0	3
46	Mechanical reinforcement of electrospun poly(vinyl alcohol) by FeOOH nanowires. <i>Polymer Composites</i> , 2018, 39, 2461-2468.	2.3	6
47	Visible Light Activated Room Temperature Gas Sensors Based on CaFe_2O_4 Nanopowders. <i>Proceedings (mdpi)</i> , 2018, 2, 834.	0.2	3
48	Reversible Photodoping of TiO_2 Nanoparticles for Photochromic Applications. <i>Chemistry of Materials</i> , 2018, 30, 8968-8974.	3.2	69
49	Solvothermal synthesis derived Co-Ga codoped ZnO diluted magnetic degenerated semiconductor nanocrystals. <i>Journal of Alloys and Compounds</i> , 2018, 763, 164-172.	2.8	17
50	Switchable Light Reflectance in Dilute Magneto-Optical Colloids Based on Nickel Ferrite Nanowires. <i>E-Journal of Surface Science and Nanotechnology</i> , 2018, 16, 119-121.	0.1	0
51	UVA-induced antimicrobial activity of ZnO/Ag nanocomposite covered surfaces. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 169, 222-232.	2.5	37
52	PEDOT electrodes for triboelectric generator devices. <i>Organic Electronics</i> , 2017, 51, 446-451.	1.4	6
53	Facile synthesis of magnetically separable $\text{CoFe}_2\text{O}_4/\text{Ag}_2\text{O}/\text{Ag}_2\text{CO}_3$ nanoheterostructures with high photocatalytic performance under visible light and enhanced stability against photodegradation. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 3455-3462.	3.3	12
54	Mechanical properties of individual fiber segments of electrospun lignocellulose reinforced poly(vinyl alcohol). <i>Journal of Applied Polymer Science</i> , 2017, 134, .	1.3	6

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55	Additives influence on spinning solution and nano web properties. IOP Conference Series: Materials Science and Engineering, 2017, 254, 102008.	0.3	1
56	Colorimetric gas detection by the varying thickness of a thin film of ultrasmall PTSA-coated TiO ₂ nanoparticles on a Si substrate. Beilstein Journal of Nanotechnology, 2017, 8, 229-236.	1.5	3
57	Complex tribomechanical characterization of ZnO nanowires: nanomanipulations supported by FEM simulations. Nanotechnology, 2016, 27, 335701.	1.3	19
58	Co doped ZnO nanowires as visible light photocatalysts. Solid State Sciences, 2016, 56, 54-62.	1.5	94
59	Polarizable Nanowire Colloids for Power Free Naked Eye Optical Detection of Electrostatic Surface Charges. Advanced Materials Technologies, 2016, 1, 1600154.	3.0	4
60	Thick silica foam films through combined catalytic decomposition of H ₂ O ₂ and sol-gel processes. Materials and Design, 2016, 111, 80-87.	3.3	7
61	Effect of cobalt doping on the mechanical properties of ZnO nanowires. Materials Characterization, 2016, 121, 40-47.	1.9	8
62	Ag sensitized TiO ₂ and NiFe ₂ O ₄ three-component nanoheterostructures: synthesis, electronic structure and strongly enhanced visible light photocatalytic activity. RSC Advances, 2016, 6, 18834-18842.	1.7	13
63	Orthorhombic CaFe ₂ O ₄ : A promising p-type gas sensor. Sensors and Actuators B: Chemical, 2016, 224, 260-265.	4.0	46
64	Spinel ferrite oxide semiconductor gas sensors. Sensors and Actuators B: Chemical, 2016, 222, 95-105.	4.0	360
65	Counterintuitive increase in optical scattering efficiency during nongentropic orientational transition in dilute ZnO nanowire suspensions. RSC Advances, 2015, 5, 104149-104154.	1.7	4
66	Fabrication of Lead Titanate PbTiO ₃ Nanofiber Mats Via Electrospinning. International Journal of Applied Ceramic Technology, 2015, 12, E117.	1.1	3
67	Comparison of the electrochemical properties of hematite thin films prepared by spray pyrolysis and electrodeposition. Ceramics International, 2015, 41, 9024-9029.	2.3	13
68	Switchable optical transmittance of TiO ₂ submicron-diameter wire suspension-based "smart window" device. Optical Materials, 2015, 46, 418-422.	1.7	12
69	Photocatalytic activity of anatase-nickel ferrite heterostructures. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 796-803.	0.8	15
70	Electrospinning of Poly(Vinyl Alcohol) Nanofiber Mats Reinforced by Lignocellulose Nanowhiskers. Soft Materials, 2015, 13, 18-23.	0.8	8
71	Enhanced stability of PVA electrospun fibers in water by adding cellulose nanocrystals. Holzforschung, 2015, 69, 737-743.	0.9	23
72	A straightforward and "green" solvothermal synthesis of Al doped zinc oxide plasmonic nanocrystals and piezoresistive elastomer nanocomposite. RSC Advances, 2015, 5, 63846-63852.	1.7	18

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73	Comparison of photocatalytic activity for different co-precipitated spinel ferrites. Research on Chemical Intermediates, 2015, 41, 9439-9449.	1.3	24
74	Mechanical characterization of TiO ₂ nanofibers produced by different electrospinning techniques. Materials Characterization, 2015, 100, 98-103.	1.9	25
75	Study of the structural phase transformation of iron oxide nanoparticles from an Fe ²⁺ ion source by precipitation under various synthesis parameters and temperatures. Materials Chemistry and Physics, 2015, 149-150, 473-479.	2.0	37
76	Synthesis of p-type and n-type nickel ferrites and associated electrical properties. Physica B: Condensed Matter, 2015, 456, 232-236.	1.3	33
77	Photocatalytic activity of non-stoichiometric ZnFe ₂ O ₄ under visible light irradiation. Physica Scripta, 2014, 89, 044011.	1.2	35
78	Effects of Co ion addition and annealing conditions on nickel ferrite gas response. Sensors and Actuators B: Chemical, 2014, 192, 173-180.	4.0	41
79	TiO ₂ nanowire dispersions in viscous polymer matrix: electrophoretic alignment and optical properties. Nanotechnology, 2014, 25, 415703.	1.3	13
80	Electro-optics of electrospun TiO ₂ anatase submicron wire based dipole particle suspension device. Optical Materials, 2014, 37, 740-744.	1.7	2
81	Precipitation synthesis of magnetite Fe ₃ O ₄ nanoflakes. Ceramics International, 2014, 40, 11437-11440.	2.3	20
82	Comparison of different methods to produce dense zinc ferrite ceramics with high electrical resistance. Ceramics International, 2014, 40, 2519-2522.	2.3	12
83	Study of Defects by Rietveld Technique and Gas Response of Excess-Iron Zinc Ferrite. Funtai Oyobi Fumatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2014, 61, S81-S84.	0.1	5
84	Electric and dielectric properties of nanostructured stoichiometric and excess-iron Ni ²⁺ -Zn ferrites. Physica Scripta, 2013, 87, 025601.	1.2	11
85	Ethanol monitoring by ZnFe ₂ O ₄ thin film obtained by spray pyrolysis. Sensors and Actuators B: Chemical, 2013, 176, 330-334.	4.0	70
86	Monophasic ZnFe ₂ O ₄ synthesis from a xerogel layer by auto combustion. Ceramics International, 2013, 39, 8499-8502.	2.3	15
87	Effect of antisite defects on the magnetic properties of ZnFe ₂ O ₄ . Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1892-1897.	0.8	26
88	The Role of Stoichiometry on Gas Response of Nanostructured Sol-Gel Auto Combustion Derived Nickel Ferrite. Sensor Letters, 2013, 11, 2010-2013.	0.4	11
89	Properties of Ni ²⁺ -Zn ferrite thin films deposited using spray pyrolysis. Thin Solid Films, 2012, 526, 65-69.	0.8	30
90	Influence of iron non-stoichiometry on spinel zinc ferrite gas sensing properties. Sensors and Actuators B: Chemical, 2012, 171-172, 204-209.	4.0	74

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91	Gas sensing properties of Zn-doped p-type nickel ferrite. Sensors and Actuators B: Chemical, 2012, 171-172, 354-360.	4.0	73
92	Sol-gel auto-combustion synthesis of spinel-type ferrite nanomaterials. Frontiers of Materials Science, 2012, 6, 128-141.	1.1	356
93	An alternative method to modify the sensitivity of p-type NiFe ₂ O ₄ gas sensor. Journal of Materials Science, 2012, 47, 2856-2863.	1.7	49
94	Effect of Cooling Conditions on Nano-Sized NiFe ₂ O ₄ Electrical Properties. Advanced Materials Research, 2011, 222, 263-266.	0.3	2
95	The effect of heating conditions on the properties of nano- and microstructured Ni-Zn ferrite. Physica Scripta, 2011, 83, 025601.	1.2	30
96	A comparative study of Ni _{0.7} Zn _{0.3} Fe ₂ O ₄ obtained by sol-gel auto-combustion and flash combustion methods. IOP Conference Series: Materials Science and Engineering, 2011, 25, 012019.	0.3	12