Jin Luo

List of Publications by Year in descending order

79 papers	4,194 citations	117625 34 h-index	106344 65 g-index
79 all docs	79 docs citations	79 times ranked	5797 citing authors

#	Article	IF	Citations
1	A Low-Current and Multi-Channel Chemiresistor Array Sensor Device. Sensors, 2022, 22, 2781.	3.8	3
2	Origin of High Activity and Durability of Twisty Nanowire Alloy Catalysts under Oxygen Reduction and Fuel Cell Operating Conditions. Journal of the American Chemical Society, 2020, 142, 1287-1299.	13.7	102
3	Surface oxygenation of multicomponent nanoparticles toward active and stable oxidation catalysts. Nature Communications, 2020, 11, 4201.	12.8	25
4	From a Au-rich core/PtNi-rich shell to a Ni-rich core/PtAu-rich shell: an effective thermochemical pathway to nanoengineering catalysts for fuel cells. Journal of Materials Chemistry A, 2018, 6, 5143-5155.	10.3	25
5	Evolution of Active Sites in Pt-Based Nanoalloy Catalysts for the Oxidation of Carbonaceous Species by Combined in Situ Infrared Spectroscopy and Total X-ray Scattering. ACS Applied Materials & Interfaces, 2018, 10, 10870-10881.	8.0	12
6	Catalytic oxidation of propane over palladium alloyed with gold: an assessment of the chemical and intermediate species. Catalysis Science and Technology, 2018, 8, 6228-6240.	4.1	12
7	Revealing the Role of Phase Structures of Bimetallic Nanocatalysts in the Oxygen Reduction Reaction. ACS Catalysis, 2018, 8, 11302-11313.	11.2	51
8	Application of differential resonant high-energy X-ray diffraction to three-dimensional structure studies of nanosized materials: A case study of Ptâ€“Pd nanoalloy catalysts. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, 553-566.	0.1	11
9	Chemiresistive properties regulated by nanoscale curvature in molecularly-linked nanoparticle composite assembly. Nanoscale, 2017, 9, 4013-4023.	5.6	4
10	Understanding Composition-Dependent Synergy of PtPd Alloy Nanoparticles in Electrocatalytic Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2017, 121, 14128-14136.	3.1	56
11	Charting the relationship between phase type-surface area-interactions between the constituent atoms and oxygen reduction activity of Pdâ€“Cu nanocatalysts inside fuel cells by in operando high-energy X-ray diffraction. Journal of Materials Chemistry A, 2017, 5, 7355-7365.	10.3	14
12	Decoration of Nanofibrous Paper Chemiresistors with Dendronized Nanoparticles toward Structurally Tunable Negativeâ€Going Response Characteristics to Human Breathing and Sweating. Advanced Materials Interfaces, 2017, 4, 1700380.	3.7	15
13	Nanoparticle Based Printed Sensors on Paper for Detecting Chemical Species. , 2017, , .		6
14	Platinumâ€“nickel nanowire catalysts with composition-tunable alloying and faceting for the oxygen reduction reaction. Journal of Materials Chemistry A, 2017, 5, 12557-12568.	10.3	45
15	Preparation of PdCu Alloy Nanocatalysts for Nitrate Hydrogenation and Carbon Monoxide Oxidation. Catalysts, 2016, 6, 96.	3.5	31
16	Structural dynamics and activity of nanocatalysts inside fuel cells by in operando atomic pair distribution studies. Nanoscale, 2016, 8, 10749-10767.	5.6	26
17	Composition Tunability and (111)-Dominant Facets of Ultrathin Platinumâ€“Gold Alloy Nanowires toward Enhanced Electrocatalysis. Journal of the American Chemical Society, 2016, 138, 12166-12175.	13.7	127
18	Composition- and Structure-Tunable Goldâ€“Cobalt Nanoparticles and Electrocatalytic Synergy for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2016, 8, 20082-20091.	8.0	36

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19	Sensors: Nanoparticle-Structured Highly Sensitive and Anisotropic Gauge Sensors (Small 35/2015). Small, 2015, 11, 4508-4508.	10.0	2
20	Nanoparticle-Structured Highly Sensitive and Anisotropic Gauge Sensors. Small, 2015, 11, 4509-4516.	10.0	38
21	Nanoscale Alloying in Electrocatalysts. Catalysts, 2015, 5, 1465-1478.	3.5	6
22	Nanoalloy Printed and Pulse-Laser Sintered Flexible Sensor Devices with Enhanced Stability and Materials Compatibility. ACS Nano, 2015, 9, 6168-6177.	14.6	40
23	PdCu Nanoalloy Electrocatalysts in Oxygen Reduction Reaction: Role of Composition and Phase State in Catalytic Synergy. ACS Applied Materials & Interfaces, 2015, 7, 25906-25913.	8.0	75
24	SERS nanoprobes for bio-application. Frontiers of Chemical Science and Engineering, 2015, 9, 428-441.	4.4	13
25	CO oxidation on supported platinum group metal (PGM) based nanoalloys. Science China Chemistry, 2015, 58, 14-28.	8.2	9
26	Harnessing the interparticle J-aggregate induced plasmonic coupling for surface-enhanced Raman scattering. Physical Chemistry Chemical Physics, 2015, 17, 28529-28533.	2.8	6
27	Surface Enhanced Raman Scattering Detection of Cancer Biomarkers with Bifunctional Nanocomposite Probes. Analytical Chemistry, 2015, 87, 10698-10702.	6.5	90
28	Compositionâ€“Structureâ€“Activity Relationships for Palladium-Alloyed Nanocatalysts in Oxygen Reduction Reaction: An Ex-Situ/In-Situ High Energy X-ray Diffraction Study. ACS Catalysis, 2015, 5, 5317-5327.	11.2	41
29	Harvesting Nanocatalytic Heat Localized in Nanoalloy Catalyst as a Heat Source in a Nanocomposite Thin Film Thermoelectric Device. Langmuir, 2015, 31, 11158-11163.	3.5	1
30	Assessing Interparticle J-Aggregation of Two Different Cyanine Dyes with Gold Nanoparticles and Their Spectroscopic Characteristics. Journal of Physical Chemistry C, 2015, 119, 27786-27796.	3.1	5
31	Nanoalloying and phase transformations during thermal treatment of physical mixtures of Pd and Cu nanoparticles. Science and Technology of Advanced Materials, 2014, 15, 025002.	6.1	14
32	Nanoalloy catalysts: structural and catalytic properties. Catalysis Science and Technology, 2014, 4, 3570-3588.	4.1	57
33	Flexibility characteristics of a polyethylene terephthalate chemiresistor coated with a nanoparticle thin film assembly. Journal of Materials Chemistry C, 2014, 2, 1893.	5.5	34
34	Nanoalloy catalysts for electrochemical energy conversion and storage reactions. RSC Advances, 2014, 4, 42654-42669.	3.6	31
35	Solving the nanostructure problem: exemplified on metallic alloy nanoparticles. Nanoscale, 2014, 6, 10048-10061.	5.6	32
36	Atomic Ordering Enhanced Electrocatalytic Activity of Nanoalloys for Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2013, 117, 20715-20721.	3.1	45

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37	Biomolecular Recognition: Nanotransduction and Nanointervention. ACS Symposium Series, 2012, , 119-146.	0.5	2
38	Gold-platinum nanoparticles: alloying and phase segregation. Journal of Materials Chemistry, 2011, 21, 4012-4020.	6.7	125
39	Enhanced Oxygen Reduction Activity of Platinum Monolayer on Gold Nanoparticles. Journal of Physical Chemistry Letters, 2011, 2, 67-72.	4.6	80
40	Nanoengineered PtVFe/C Cathode Electrocatalysts in PEM Fuel Cells: Catalyst Activity and Stability. ChemCatChem, 2011, 3, 583-593.	3.7	25
41	From Ultrafine Thiolate-Capped Copper Nanoclusters toward Copper Sulfide Nanodiscs: A Thermally Activated Evolution Route. Chemistry of Materials, 2010, 22, 261-271.	6.7	77
42	Probing interfacial interactions of bacteria on metal nanoparticles and substrates with different surface properties. International Journal of Antimicrobial Agents, 2010, 36, 549-556.	2.5	22
43	Nanoscale Alloying, Phase-Segregation, and Coreâ˜Shell Evolution of Goldâ˜Platinum Nanoparticles and Their Electrocatalytic Effect on Oxygen Reduction Reaction. Chemistry of Materials, 2010, 22, 4282-4294.	6.7	205
44	Flexible chemiresistor sensors: thin film assemblies of nanoparticles on a polyethylene terephthalate substrate. Journal of Materials Chemistry, 2010, 20, 907-915.	6.7	64
45	Thermal Treatment of PtNiCo Electrocatalysts: Effects of Nanoscale Strain and Structure on the Activity and Stability for the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2010, 114, 17580-17590.	3.1	95
46	Fuel cell technology: nano-engineered multimetallic catalysts. Energy and Environmental Science, 2008, 1, 454.	30.8	144
47	Core@shell nanomaterials: gold-coated magnetic oxide nanoparticles. Journal of Materials Chemistry, 2008, 18, 2629.	6.7	187
48	Correlation between nanostructural parameters and conductivity properties for molecularly-mediated thin film assemblies of gold nanoparticles. Journal of Materials Chemistry, 2007, 17, 457-462.	6.7	69
49	Size Correlation of Optical and Spectroscopic Properties for Gold Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 14664-14669.	3.1	533
50	Molecularly Tuned Size Selectivity in Thermal Processing of Gold Nanoparticles. Chemistry of Materials, 2006, 18, 5147-5149.	6.7	53
51	Ternary alloy nanoparticles with controllable sizes and composition and electrocatalytic activity. Journal of Materials Chemistry, 2006, 16, 1665.	6.7	95
52	Characterization of Carbon-Supported AuPt Nanoparticles for Electrocatalytic Methanol Oxidation Reaction. Langmuir, 2006, 22, 2892-2898.	3.5	266
53	Assembly of Bimetallic Goldâ˜Silver Nanoparticles via Selective Interparticle Dicarboxylateâ˜Silver Linkages. Chemistry of Materials, 2006, 18, 123-132.	6.7	32
54	Iron oxideâ€“gold coreâ€“shell nanoparticles and thin film assembly. Journal of Materials Chemistry, 2005, 15, 1821.	6.7	211

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55	Synthesis of Bimetallic AuPt Nanoparticles in Aqueous Solution and Electrocatalytic Activity. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	1
56	A Kinetic Study of Mediator-Template Assembly of Gold Nanoparticles. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0
57	Silica-Supported Au and Pt Nanoparticles and CO Adsorption. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0
58	Iron Oxide Composite Nanoparticles and Sensing Properties. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0
59	Multifunctional Fullerene-Mediated Assembly of Gold Nanoparticles. Chemistry of Materials, 2005, 17, 6528-6531.	6.7	37
60	Synthesis of Monolayer-Capped GaAs Nanoparticles. Materials Research Society Symposia Proceedings, 2004, 828, 233.	0.1	0
61	Spectroscopic Characterizations of Molecularly Linked Gold Nanoparticle Assemblies upon Thermal Treatment. Langmuir, 2004, 20, 4254-4260.	3.5	32
62	Electrocatalytic reduction of oxygen: Gold and gold-platinum nanoparticle catalysts prepared by two-phase protocol. Gold Bulletin, 2004, 37, 217-223.	2.7	73
63	Nanoparticle-Structured Ligand Framework as Electrode Interfaces. Electroanalysis, 2004, 16, 120-126.	2.9	20
64	Synthesis and Characterization of Magnetic Iron Oxide Nanoparticles. Materials Research Society Symposia Proceedings, 2004, 853, 37.	0.1	0
65	Synthesis, processing, assembly and activation of core-shell structured gold nanoparticle catalysts. Gold Bulletin, 2003, 36, 75-82.	2.7	70
66	Atomic Scale Imaging: A Hands-On Scanning Probe Microscopy Laboratory for Undergraduates. Journal of Chemical Education, 2003, 80, 194.	2.3	30
67	Novel Interparticle Spatial Properties of Hydrogen-Bonding Mediated Nanoparticle Assembly. Chemistry of Materials, 2003, 15, 29-37.	6.7	107
68	X-ray Photoelectron Spectroscopic Study of the Activation of Molecularly-Linked Gold Nanoparticle Catalysts. Langmuir, 2003, 19, 125-131.	3.5	93
69	A Thermogravimetric Study of Alakanethiolate Monolayer-Capped Gold Nanoparticle Catalysts. Materials Research Society Symposia Proceedings, 2003, 789, 45.	0.1	0
70	Nanostructured Materials for Microfluidic Sensing Application. Materials Research Society Symposia Proceedings, 2003, 782, 1.	0.1	0
71	Construction of Spherical Assembly of Gold Nanoparticles Using Tetra[(methylthio)methyl] silane as Ligand. Materials Research Society Symposia Proceedings, 2002, 739, 261.	0.1	0
72	Interfacial Ion Fluxes at Nanostructured Thin Films. Materials Research Society Symposia Proceedings, 2002, 752, 1.	0.1	0

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73	Characterizations of Core-Shell Nanoparticle Catalysts for Methanol Electrooxidation. Materials Research Society Symposia Proceedings, 2002, 756, 1.	0.1	2
74	Thermal Activation of Molecularly-Wired Gold Nanoparticles on a Substrate as Catalyst. Journal of the American Chemical Society, 2002, 124, 13988-13989.	13.7	82
75	Chemical Analysis Using Scanning Force Microscopy. An Undergraduate Laboratory Experiment. Journal of Chemical Education, 2002, 79, 207.	2.3	21
76	Goldâ€“platinum alloy nanoparticle assembly as catalyst for methanol electrooxidation. Chemical Communications, 2001, , 473-474.	4.1	167
77	Probing pH-Tuned Morphological Changes in Coreâ^'Shell Nanoparticle Assembly Using Atomic Force Microscopy. Nano Letters, 2001, 1, 575-579.	9.1	34
78	Characterizations of Nanostructured Films as Responsive Electrode Materials. Materials Research Society Symposia Proceedings, 2001, 704, 9291.	0.1	0
79	Organic-Inorganic Network Assembles of Nanoparticles as Chemically Sensitive Interfacial Materials. Materials Research Society Symposia Proceedings, 2001, 710, 1.	0.1	0