

Jin Luo

List of Publications by Year in descending order

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79
papers

4,194
citations

117625

34
h-index

106344

65
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79
all docs

79
docs citations

79
times ranked

5797
citing authors

#	ARTICLE	IF	CITATIONS
1	Size Correlation of Optical and Spectroscopic Properties for Gold Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2007, 111, 14664-14669.	3.1	533
2	Characterization of Carbon-Supported AuPt Nanoparticles for Electrocatalytic Methanol Oxidation Reaction. <i>Langmuir</i> , 2006, 22, 2892-2898.	3.5	266
3	Iron oxide-gold core-shell nanoparticles and thin film assembly. <i>Journal of Materials Chemistry</i> , 2005, 15, 1821.	6.7	211
4	Nanoscale Alloying, Phase-Segregation, and Core-Shell Evolution of Gold-Platinum Nanoparticles and Their Electrocatalytic Effect on Oxygen Reduction Reaction. <i>Chemistry of Materials</i> , 2010, 22, 4282-4294.	6.7	205
5	Core@shell nanomaterials: gold-coated magnetic oxide nanoparticles. <i>Journal of Materials Chemistry</i> , 2008, 18, 2629.	6.7	187
6	Gold-platinum alloy nanoparticle assembly as catalyst for methanol electrooxidation. <i>Chemical Communications</i> , 2001, , 473-474.	4.1	167
7	Fuel cell technology: nano-engineered multimetallic catalysts. <i>Energy and Environmental Science</i> , 2008, 1, 454.	30.8	144
8	Composition Tunability and (111)-Dominant Facets of Ultrathin Platinum-Gold Alloy Nanowires toward Enhanced Electrocatalysis. <i>Journal of the American Chemical Society</i> , 2016, 138, 12166-12175.	13.7	127
9	Gold-platinum nanoparticles: alloying and phase segregation. <i>Journal of Materials Chemistry</i> , 2011, 21, 4012-4020.	6.7	125
10	Novel Interparticle Spatial Properties of Hydrogen-Bonding Mediated Nanoparticle Assembly. <i>Chemistry of Materials</i> , 2003, 15, 29-37.	6.7	107
11	Origin of High Activity and Durability of Twisty Nanowire Alloy Catalysts under Oxygen Reduction and Fuel Cell Operating Conditions. <i>Journal of the American Chemical Society</i> , 2020, 142, 1287-1299.	13.7	102
12	Ternary alloy nanoparticles with controllable sizes and composition and electrocatalytic activity. <i>Journal of Materials Chemistry</i> , 2006, 16, 1665.	6.7	95
13	Thermal Treatment of PtNiCo Electrocatalysts: Effects of Nanoscale Strain and Structure on the Activity and Stability for the Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2010, 114, 17580-17590.	3.1	95
14	X-ray Photoelectron Spectroscopic Study of the Activation of Molecularly-Linked Gold Nanoparticle Catalysts. <i>Langmuir</i> , 2003, 19, 125-131.	3.5	93
15	Surface Enhanced Raman Scattering Detection of Cancer Biomarkers with Bifunctional Nanocomposite Probes. <i>Analytical Chemistry</i> , 2015, 87, 10698-10702.	6.5	90
16	Thermal Activation of Molecularly-Wired Gold Nanoparticles on a Substrate as Catalyst. <i>Journal of the American Chemical Society</i> , 2002, 124, 13988-13989.	13.7	82
17	Enhanced Oxygen Reduction Activity of Platinum Monolayer on Gold Nanoparticles. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 67-72.	4.6	80
18	From Ultrafine Thiolate-Capped Copper Nanoclusters toward Copper Sulfide Nanodiscs: A Thermally Activated Evolution Route. <i>Chemistry of Materials</i> , 2010, 22, 261-271.	6.7	77

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19	PdCu Nanoalloy Electrocatalysts in Oxygen Reduction Reaction: Role of Composition and Phase State in Catalytic Synergy. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 25906-25913.	8.0	75
20	Electrocatalytic reduction of oxygen: Gold and gold-platinum nanoparticle catalysts prepared by two-phase protocol. <i>Gold Bulletin</i> , 2004, 37, 217-223.	2.7	73
21	Synthesis, processing, assembly and activation of core-shell structured gold nanoparticle catalysts. <i>Gold Bulletin</i> , 2003, 36, 75-82.	2.7	70
22	Correlation between nanostructural parameters and conductivity properties for molecularly-mediated thin film assemblies of gold nanoparticles. <i>Journal of Materials Chemistry</i> , 2007, 17, 457-462.	6.7	69
23	Flexible chemiresistor sensors: thin film assemblies of nanoparticles on a polyethylene terephthalate substrate. <i>Journal of Materials Chemistry</i> , 2010, 20, 907-915.	6.7	64
24	Nanoalloy catalysts: structural and catalytic properties. <i>Catalysis Science and Technology</i> , 2014, 4, 3570-3588.	4.1	57
25	Understanding Composition-Dependent Synergy of PtPd Alloy Nanoparticles in Electrocatalytic Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2017, 121, 14128-14136.	3.1	56
26	Molecularly Tuned Size Selectivity in Thermal Processing of Gold Nanoparticles. <i>Chemistry of Materials</i> , 2006, 18, 5147-5149.	6.7	53
27	Revealing the Role of Phase Structures of Bimetallic Nanocatalysts in the Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2018, 8, 11302-11313.	11.2	51
28	Atomic Ordering Enhanced Electrocatalytic Activity of Nanoalloys for Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2013, 117, 20715-20721.	3.1	45
29	Platinum-nickel nanowire catalysts with composition-tunable alloying and faceting for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12557-12568.	10.3	45
30	Composition-Structure-Activity Relationships for Palladium-Alloyed Nanocatalysts in Oxygen Reduction Reaction: An Ex-Situ/In-Situ High Energy X-ray Diffraction Study. <i>ACS Catalysis</i> , 2015, 5, 5317-5327.	11.2	41
31	Nanoalloy Printed and Pulse-Laser Sintered Flexible Sensor Devices with Enhanced Stability and Materials Compatibility. <i>ACS Nano</i> , 2015, 9, 6168-6177.	14.6	40
32	Nanoparticle-Structured Highly Sensitive and Anisotropic Gauge Sensors. <i>Small</i> , 2015, 11, 4509-4516.	10.0	38
33	Multifunctional Fullerene-Mediated Assembly of Gold Nanoparticles. <i>Chemistry of Materials</i> , 2005, 17, 6528-6531.	6.7	37
34	Composition- and Structure-Tunable Gold-Cobalt Nanoparticles and Electrocatalytic Synergy for Oxygen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 20082-20091.	8.0	36
35	Probing pH-Tuned Morphological Changes in Core-Shell Nanoparticle Assembly Using Atomic Force Microscopy. <i>Nano Letters</i> , 2001, 1, 575-579.	9.1	34
36	Flexibility characteristics of a polyethylene terephthalate chemiresistor coated with a nanoparticle thin film assembly. <i>Journal of Materials Chemistry C</i> , 2014, 2, 1893.	5.5	34

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37	Spectroscopic Characterizations of Molecularly Linked Gold Nanoparticle Assemblies upon Thermal Treatment. <i>Langmuir</i> , 2004, 20, 4254-4260.	3.5	32
38	Assembly of Bimetallic Gold-Silver Nanoparticles via Selective Interparticle Dicarboxylate-Silver Linkages. <i>Chemistry of Materials</i> , 2006, 18, 123-132.	6.7	32
39	Solving the nanostructure problem: exemplified on metallic alloy nanoparticles. <i>Nanoscale</i> , 2014, 6, 10048-10061.	5.6	32
40	Nanoalloy catalysts for electrochemical energy conversion and storage reactions. <i>RSC Advances</i> , 2014, 4, 42654-42669.	3.6	31
41	Preparation of PdCu Alloy Nanocatalysts for Nitrate Hydrogenation and Carbon Monoxide Oxidation. <i>Catalysts</i> , 2016, 6, 96.	3.5	31
42	Atomic Scale Imaging: A Hands-On Scanning Probe Microscopy Laboratory for Undergraduates. <i>Journal of Chemical Education</i> , 2003, 80, 194.	2.3	30
43	Structural dynamics and activity of nanocatalysts inside fuel cells by in operando atomic pair distribution studies. <i>Nanoscale</i> , 2016, 8, 10749-10767.	5.6	26
44	Nanoengineered PtVFe/C Cathode Electrocatalysts in PEM Fuel Cells: Catalyst Activity and Stability. <i>ChemCatChem</i> , 2011, 3, 583-593.	3.7	25
45	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. <i>Journal of Materials Chemistry A</i> , 2018, 6, 5143-5155.	10.3	25
46	Surface oxygenation of multicomponent nanoparticles toward active and stable oxidation catalysts. <i>Nature Communications</i> , 2020, 11, 4201.	12.8	25
47	Probing interfacial interactions of bacteria on metal nanoparticles and substrates with different surface properties. <i>International Journal of Antimicrobial Agents</i> , 2010, 36, 549-556.	2.5	22
48	Chemical Analysis Using Scanning Force Microscopy. An Undergraduate Laboratory Experiment. <i>Journal of Chemical Education</i> , 2002, 79, 207.	2.3	21
49	Nanoparticle-Structured Ligand Framework as Electrode Interfaces. <i>Electroanalysis</i> , 2004, 16, 120-126.	2.9	20
50	Decoration of Nanofibrous Paper Chemiresistors with Dendronized Nanoparticles toward Structurally Tunable Negative-Going Response Characteristics to Human Breathing and Sweating. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700380.	3.7	15
51	Nanoalloying and phase transformations during thermal treatment of physical mixtures of Pd and Cu nanoparticles. <i>Science and Technology of Advanced Materials</i> , 2014, 15, 025002.	6.1	14
52	Charting the relationship between phase type-surface area-interactions between the constituent atoms and oxygen reduction activity of Pd-Cu nanocatalysts inside fuel cells by in operando high-energy X-ray diffraction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7355-7365.	10.3	14
53	SERS nanoprobe for bio-application. <i>Frontiers of Chemical Science and Engineering</i> , 2015, 9, 428-441.	4.4	13
54	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. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 10870-10881.	8.0	12

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55	Catalytic oxidation of propane over palladium alloyed with gold: an assessment of the chemical and intermediate species. <i>Catalysis Science and Technology</i> , 2018, 8, 6228-6240.	4.1	12
56	Application of differential resonant high-energy X-ray diffraction to three-dimensional structure studies of nanosized materials: A case study of Pt@Pd nanoalloy catalysts. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2018, 74, 553-566.	0.1	11
57	CO oxidation on supported platinum group metal (PGM) based nanoalloys. <i>Science China Chemistry</i> , 2015, 58, 14-28.	8.2	9
58	Nanoscale Alloying in Electrocatalysts. <i>Catalysts</i> , 2015, 5, 1465-1478.	3.5	6
59	Harnessing the interparticle J-aggregate induced plasmonic coupling for surface-enhanced Raman scattering. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 28529-28533.	2.8	6
60	Nanoparticle Based Printed Sensors on Paper for Detecting Chemical Species. , 2017, , .		6
61	Assessing Interparticle J-Aggregation of Two Different Cyanine Dyes with Gold Nanoparticles and Their Spectroscopic Characteristics. <i>Journal of Physical Chemistry C</i> , 2015, 119, 27786-27796.	3.1	5
62	Chemiresistive properties regulated by nanoscale curvature in molecularly-linked nanoparticle composite assembly. <i>Nanoscale</i> , 2017, 9, 4013-4023.	5.6	4
63	A Low-Current and Multi-Channel Chemiresistor Array Sensor Device. <i>Sensors</i> , 2022, 22, 2781.	3.8	3
64	Characterizations of Core-Shell Nanoparticle Catalysts for Methanol Electrooxidation. <i>Materials Research Society Symposia Proceedings</i> , 2002, 756, 1.	0.1	2
65	Biomolecular Recognition: Nanotransduction and Nanointervention. <i>ACS Symposium Series</i> , 2012, , 119-146.	0.5	2
66	Sensors: Nanoparticle-Structured Highly Sensitive and Anisotropic Gauge Sensors (Small 35/2015). <i>Small</i> , 2015, 11, 4508-4508.	10.0	2
67	Synthesis of Bimetallic AuPt Nanoparticles in Aqueous Solution and Electrocatalytic Activity. <i>Materials Research Society Symposia Proceedings</i> , 2005, 900, 1.	0.1	1
68	Harvesting Nanocatalytic Heat Localized in Nanoalloy Catalyst as a Heat Source in a Nanocomposite Thin Film Thermoelectric Device. <i>Langmuir</i> , 2015, 31, 11158-11163.	3.5	1
69	Characterizations of Nanostructured Films as Responsive Electrode Materials. <i>Materials Research Society Symposia Proceedings</i> , 2001, 704, 9291.	0.1	0
70	Organic-Inorganic Network Assembles of Nanoparticles as Chemically Sensitive Interfacial Materials. <i>Materials Research Society Symposia Proceedings</i> , 2001, 710, 1.	0.1	0
71	Construction of Spherical Assembly of Gold Nanoparticles Using Tetra[(methylthio)methyl] silane as Ligand. <i>Materials Research Society Symposia Proceedings</i> , 2002, 739, 261.	0.1	0
72	Interfacial Ion Fluxes at Nanostructured Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 2002, 752, 1.	0.1	0

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73	A Thermogravimetric Study of Alkanethiolate Monolayer-Capped Gold Nanoparticle Catalysts. Materials Research Society Symposia Proceedings, 2003, 789, 45.	0.1	0
74	Nanostructured Materials for Microfluidic Sensing Application. Materials Research Society Symposia Proceedings, 2003, 782, 1.	0.1	0
75	Synthesis of Monolayer-Capped GaAs Nanoparticles. Materials Research Society Symposia Proceedings, 2004, 828, 233.	0.1	0
76	Synthesis and Characterization of Magnetic Iron Oxide Nanoparticles. Materials Research Society Symposia Proceedings, 2004, 853, 37.	0.1	0
77	A Kinetic Study of Mediator-Template Assembly of Gold Nanoparticles. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0
78	Silica-Supported Au and Pt Nanoparticles and CO Adsorption. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0
79	Iron Oxide Composite Nanoparticles and Sensing Properties. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0