Chuan-Jian Zhong

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7538020/publications.pdf

Version: 2024-02-01

253	18,138	9254	15249
papers	citations	74 h-index	126 g-index

258	258	258	17683
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Alkanethiolate Gold Cluster Molecules with Core Diameters from 1.5 to 5.2 nm:â€‰ Core and Monolayer Properties as a Function of Core Size. Langmuir, 1998, 14, 17-30.	1.6	1,750
2	Monodispersed Coreâ˜Shell Fe3O4@Au Nanoparticles. Journal of Physical Chemistry B, 2005, 109, 21593-21601.	1.2	545
3	Hydrogen production from water electrolysis: role of catalysts. Nano Convergence, 2021, 8, 4.	6.3	540
4	Size Correlation of Optical and Spectroscopic Properties for Gold Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 14664-14669.	1.5	533
5	Synthesis of Size-Controlled and Shaped Copper Nanoparticles. Langmuir, 2007, 23, 5740-5745.	1.6	455
6	Fabrication of Magnetic Core@Shell Fe Oxide@Au Nanoparticles for Interfacial Bioactivity and Bio-separation. Langmuir, 2007, 23, 9050-9056.	1.6	321
7	Heating-Induced Evolution of Thiolate-Encapsulated Gold Nanoparticles:Â A Strategy for Size and Shape Manipulations. Langmuir, 2000, 16, 490-497.	1.6	320
8	Recent Advances in Electrocatalysts for Proton Exchange Membrane Fuel Cells and Alkaline Membrane Fuel Cells. Advanced Materials, 2021, 33, e2006292.	11.1	300
9	Characterization of Carbon-Supported AuPt Nanoparticles for Electrocatalytic Methanol Oxidation Reaction. Langmuir, 2006, 22, 2892-2898.	1.6	266
10	Stable, Monolayer-Protected Metal Alloy Clusters. Journal of the American Chemical Society, 1998, 120, 9396-9397.	6.6	253
11	Phase Properties of Carbon-Supported Goldâ˜Platinum Nanoparticles with Different Bimetallic Compositions. Chemistry of Materials, 2005, 17, 3086-3091.	3.2	239
12	Core/Shell Nanoparticles as Electrocatalysts for Fuel Cell Reactions. Advanced Materials, 2008, 20, 4342-4347.	11.1	231
13	Synergistic activity of gold-platinum alloy nanoparticle catalysts. Catalysis Today, 2007, 122, 378-385.	2.2	221
14	Iron oxideâ€“gold coreâ€“shell nanoparticles and thin film assembly. Journal of Materials Chemistry, 2005, 15, 1821.	6.7	211
15	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.	3.2	205
16	Core@shell nanomaterials: gold-coated magnetic oxide nanoparticles. Journal of Materials Chemistry, 2008, 18, 2629.	6.7	187
17	Colorimetric detection of thiol-containing amino acids using gold nanoparticles. Analyst, The, 2002, 127, 462-465.	1.7	181
18	Evidence for Carbon-Sulfur Bond Cleavage in Spontaneously Adsorbed Organosulfide-Based Monolayers at Gold. Journal of the American Chemical Society, 1994, 116, 11616-11617.	6.6	174

#	Article	IF	Citations
19	Nanostructured catalysts in fuel cells. Nanotechnology, 2010, 21, 062001.	1.3	173
20	Nanoengineered PtCo and PtNi Catalysts for Oxygen Reduction Reaction: An Assessment of the Structural and Electrocatalytic Properties. Journal of Physical Chemistry C, 2011, 115, 1682-1694.	1.5	173
21	Coreâ^'Shell Gold Nanoparticle Assembly as Novel Electrocatalyst of CO Oxidation. Langmuir, 2000, 16, 7520-7523.	1.6	170
22	Goldâ€"platinum alloy nanoparticle assembly as catalyst for methanol electrooxidation. Chemical Communications, 2001, , 473-474.	2.2	167
23	Mediatorâ^'Template Assembly of Nanoparticles. Journal of the American Chemical Society, 2005, 127, 1519-1529.	6.6	165
24	Coreâ^'Shell Nanostructured Nanoparticle Films as Chemically Sensitive Interfaces. Analytical Chemistry, 2001, 73, 4441-4449.	3.2	163
25	Organosulfur Monolayers at Gold Surfaces:Â Reexamination of the Case for Sulfide Adsorption and Implications to the Formation of Monolayers from Thiols and Disulfides. Langmuir, 1999, 15, 518-525.	1.6	161
26	Fine structure in the voltammetric desorption curves of alkanethiolate monolayers chemisorbed at gold. Journal of Electroanalytical Chemistry, 1997, 425, 147-153.	1.9	160
27	A Direct Route toward Assembly of Nanoparticleâ^'Carbon Nanotube Composite Materials. Langmuir, 2004, 20, 6019-6025.	1.6	158
28	Structures and Properties of Nanoparticle Thin Films Formed via a One-Step Exchangeâ^'Cross-Linkingâ^'Precipitation Route. Analytical Chemistry, 1999, 71, 5076-5083.	3.2	155
29	Molecularly Mediated Processing and Assembly of Nanoparticles: Exploring the Interparticle Interactions and Structures. Accounts of Chemical Research, 2009, 42, 798-808.	7.6	154
30	Voltammetric reductive desorption characteristics of alkanethiolate monolayers at single crystal Au(111) and (110) electrode surfaces. Journal of Electroanalytical Chemistry, 1997, 421, 9-13.	1.9	146
31	Interparticle Interactions in Glutathione Mediated Assembly of Gold Nanoparticles. Langmuir, 2008, 24, 8857-8863.	1.6	146
32	Fuel cell technology: nano-engineered multimetallic catalysts. Energy and Environmental Science, 2008, 1, 454.	15.6	144
33	Structural origin of high catalytic activity for preferential CO oxidation over CuO/CeO2 nanocatalysts with different shapes. Applied Catalysis B: Environmental, 2018, 239, 665-676.	10.8	144
34	Array of Molecularly Mediated Thin Film Assemblies of Nanoparticles:Â Correlation of Vapor Sensing with Interparticle Spatial Properties. Journal of the American Chemical Society, 2007, 129, 2161-2170.	6.6	141
35	Enhanced radical scavenging activity by antioxidant-functionalized gold nanoparticles: A novel inspiration for development of new artificial antioxidants. Free Radical Biology and Medicine, 2007, 43, 1243-1254.	1.3	141
36	Homocysteine-Mediated Reactivity and Assembly of Gold Nanoparticles. Langmuir, 2007, 23, 826-833.	1.6	137

#	Article	IF	Citations
37	Alloyingâ€“realloying enabled high durability for Ptâ€“Pd-3d-transition metal nanoparticle fuel cell catalysts. Nature Communications, 2021, 12, 859.	5.8	137
38	Electrocatalytic oxidation of methanol: carbon-supported goldâ€“platinum nanoparticle catalysts prepared by two-phase protocol. Catalysis Today, 2005, 99, 291-297.	2.2	135
39	Novel Spherical Assembly of Gold Nanoparticles Mediated by a Tetradentate Thioether. Journal of the American Chemical Society, 2002, 124, 4958-4959.	6.6	129
40	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.	6.6	127
41	Surface Partial-Charge-Tuned Enhancement of Catalytic Activity of Platinum Nanocatalysts for Toluene Oxidation. ACS Catalysis, 2019, 9, 7431-7442.	5.5	127
42	Composition-Controlled Synthesis of Bimetallic Goldâ^'Silver Nanoparticles. Langmuir, 2004, 20, 11240-11246.	1.6	125
43	Gold-platinum nanoparticles: alloying and phase segregation. Journal of Materials Chemistry, 2011, 21, 4012-4020.	6.7	125
44	Adsorption of Cyanine Dyes on Gold Nanoparticles and Formation of J-Aggregates in the Nanoparticle Assembly. Journal of Physical Chemistry B, 2006, 110, 6673-6682.	1.2	124
45	Imparting Biomimetic Ion-Gating Recognition Properties to Electrodes with a Hydrogen-Bonding Structured Coreâ^'Shell Nanoparticle Network. Analytical Chemistry, 2000, 72, 2190-2199.	3.2	114
46	Nanocontainer-Enhanced Self-Healing for Corrosion-Resistant Ni Coating on Mg Alloy. ACS Applied Materials & Interfaces, 2017, 9, 36247-36260.	4.0	109
47	Composition-Tunable PtCu Alloy Nanowires and Electrocatalytic Synergy for Methanol Oxidation Reaction. Journal of Physical Chemistry C, 2016, 120, 10476-10484.	1.5	106
48	Gold and alloy nanoparticles in solution and thin film assembly: spectrophotometric determination of molar absorptivity. Analytica Chimica Acta, 2003, 496, 17-27.	2.6	105
49	Atomic-Structural Synergy for Catalytic CO Oxidation over Palladiumâ€“Nickel Nanoalloys. Journal of the American Chemical Society, 2014, 136, 7140-7151.	6.6	104
50	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.	6.6	102
51	Highly Active and Stable Ptâ€“Pd Alloy Catalysts Synthesized by Roomâ€Temperature Electron Reduction for Oxygen Reduction Reaction. Advanced Science, 2017, 4, 1600486.	5.6	101
52	Rutheniumâ€“nickelâ€“nickel hydroxide nanoparticles for room temperature catalytic hydrogenation. Journal of Materials Chemistry A, 2017, 5, 7869-7875.	5.2	100
53	Bacterial Inactivation Using Silver-Coated Magnetic Nanoparticles as Functional Antimicrobial Agents. Analytical Chemistry, 2011, 83, 8688-8695.	3.2	97
54	Correlation between Atomic Coordination Structure and Enhanced Electrocatalytic Activity for Trimetallic Alloy Catalysts. Journal of the American Chemical Society, 2011, 133, 12714-12727.	6.6	96

#	Article	IF	Citations
55	Ptâ€“Au Alloying at the Nanoscale. Nano Letters, 2012, 12, 4289-4299.	4.5	96
56	Manipulating coreâ€“shell reactivities for processing nanoparticle sizes and shapes. Journal of Materials Chemistry, 2000, 10, 1895-1901.	6.7	95
57	Ternary alloy nanoparticles with controllable sizes and composition and electrocatalytic activity. Journal of Materials Chemistry, 2006, 16, 1665.	6.7	95
58	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.	1.5	95
59	X-ray Photoelectron Spectroscopic Study of the Activation of Molecularly-Linked Gold Nanoparticle Catalysts. Langmuir, 2003, 19, 125-131.	1.6	93
60	Surface Enhanced Raman Scattering Detection of Cancer Biomarkers with Bifunctional Nanocomposite Probes. Analytical Chemistry, 2015, 87, 10698-10702.	3.2	90
61	Preparation and characterization of carbon-supported PtVFe electrocatalysts. Electrochimica Acta, 2006, 51, 4821-4827.	2.6	89
62	Role of Supportâ€“Nanoalloy Interactions in the Atomic-Scale Structural and Chemical Ordering for Tuning Catalytic Sites. Journal of the American Chemical Society, 2012, 134, 15048-15060.	6.6	89
63	Catalytic and Electrocatalytic Oxidation of Ethanol over Palladium-Based Nanoalloy Catalysts. Langmuir, 2013, 29, 9249-9258.	1.6	87
64	Size-Controlled Assembly of Gold Nanoparticles Induced by a Tridentate Thioether Ligand. Journal of the American Chemical Society, 2003, 125, 9906-9907.	6.6	85
65	Nanoparticle-structured sensing array materials and pattern recognition for VOC detection. Sensors and Actuators B: Chemical, 2005, 106, 431-441.	4.0	85
66	Goldâ€“Copper Nanoparticles: Nanostructural Evolution and Bifunctional Catalytic Sites. Chemistry of Materials, 2012, 24, 4662-4674.	3.2	85
67	Thermal Activation of Molecularly-Wired Gold Nanoparticles on a Substrate as Catalyst. Journal of the American Chemical Society, 2002, 124, 13988-13989.	6.6	82
68	Designing Interfaces at the Molecular Level. Analytical Chemistry, 1995, 67, 709A-715A.	3.2	80
69	Enhanced Oxygen Reduction Activity of Platinum Monolayer on Gold Nanoparticles. Journal of Physical Chemistry Letters, 2011, 2, 67-72.	2.1	80
70	Ultrafine Nanoparticleâ€Supported Ru Nanoclusters with Ultrahigh Catalytic Activity. Small, 2015, 11, 4385-4393.	5.2	80
71	Dynamic Coreâ€“Shell and Alloy Structures of Multimetallic Nanomaterials and Their Catalytic Synergies. Accounts of Chemical Research, 2020, 53, 2913-2924.	7.6	79
72	MicroRNA Conjugated Gold Nanoparticles and Cell Transfection. Analytical Chemistry, 2012, 84, 26-29.	3.2	78

#	Article	IF	Citations
73	Gold and magnetic oxide/gold core/shell nanoparticles as bio-functional nanoprobes. Nanotechnology, 2008, 19, 305102.	1.3	77
74	From Ultrafine Thiolate-Capped Copper Nanoclusters toward Copper Sulfide Nanodiscs: A Thermally Activated Evolution Route. Chemistry of Materials, 2010, 22, 261-271.	3.2	77
75	Synthesis and Characterization of Monolayer-Capped PtVFe Nanoparticles with Controllable Sizes and Composition. Chemistry of Materials, 2005, 17, 5282-5290.	3.2	76
76	Nanocrystal and surface alloy properties of bimetallic Gold-Platinum nanoparticles. Nanoscale Research Letters, 2007, 2, 12-16.	3.1	76
77	Development of a thiophene derivative modified LDH coating for Mg alloy corrosion protection. Electrochimica Acta, 2020, 330, 135186.	2.6	76
78	PdCu Nanoalloy Electrocatalysts in Oxygen Reduction Reaction: Role of Composition and Phase State in Catalytic Synergy. ACS Applied Materials & Interfaces, 2015, 7, 25906-25913.	4.0	75
79	Electrocatalytic reduction of oxygen: Gold and gold-platinum nanoparticle catalysts prepared by two-phase protocol. Gold Bulletin, 2004, 37, 217-223.	3.2	73
80	Thin Film Assemblies of Molecularly-Linked Metal Nanoparticles and Multifunctional Properties. Langmuir, 2010, 26, 618-632.	1.6	73
81	Goldâ€“platinum alloy nanowires as highly sensitive materials for electrochemical detection of hydrogen peroxide. Analytica Chimica Acta, 2012, 757, 56-62.	2.6	72
82	Synthesis, processing, assembly and activation of core-shell structured gold nanoparticle catalysts. Gold Bulletin, 2003, 36, 75-82.	3.2	70
83	Molecularly Mediated Thin Film Assembly of Nanoparticles on Flexible Devices: Electrical Conductivity versus Device Strains in Different Gas/Vapor Environment. ACS Nano, 2011, 5, 6516-6526.	7.3	70
84	Strain-Modulated Platinumâ€“Palladium Nanowires for Oxygen Reduction Reaction. Nano Letters, 2020, 20, 2416-2422.	4.5	70
85	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
86	Aggregative Growth in the Size-Controlled Growth of Monodispersed Gold Nanoparticles. Langmuir, 2010, 26, 13622-13629.	1.6	67
87	Flexible chemiresistor sensors: thin film assemblies of nanoparticles on a polyethylene terephthalate substrate. Journal of Materials Chemistry, 2010, 20, 907-915.	6.7	64
88	Role of Metal Coordination Structures in Enhancement of Electrocatalytic Activity of Ternary Nanoalloys for Oxygen Reduction Reaction. ACS Catalysis, 2012, 2, 795-806.	5.5	62
89	Highly active and stable Pt (111) catalysts synthesized by peptide assisted room temperature electron reduction for oxygen reduction reaction. Nano Energy, 2016, 25, 26-33.	8.2	62
90	Nanoalloy catalysts: structural and catalytic properties. Catalysis Science and Technology, 2014, 4, 3570-3588.	2.1	57

#	Article	IF	Citations
91	Understanding Composition-Dependent Synergy of PtPd Alloy Nanoparticles in Electrocatalytic Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2017, 121, 14128-14136.	1.5	56
92	Platinum-Catalyzed Synthesis of Water-Soluble Goldâ^'Platinum Nanoparticles. Langmuir, 2005, 21, 1623-1628.	1.6	54
93	Structural and Electrocatalytic Properties of PtIrCo/C Catalysts for Oxygen Reduction Reaction. ACS Catalysis, 2011, 1, 562-572.	5.5	54
94	Formation of thiol-based monolayers on gold: implications from open circuit potential measurements. Electrochemistry Communications, 1999, 1, 17-21.	2.3	53
95	Molecularly Tuned Size Selectivity in Thermal Processing of Gold Nanoparticles. Chemistry of Materials, 2006, 18, 5147-5149.	3.2	53
96	Catalytic activity of bimetallic catalysts highly sensitive to the atomic composition and phase structure at the nanoscale. Nanoscale, 2015, 7, 18936-18948.	2.8	53
97	Enhancing structure integrity and corrosion resistance of Mg alloy by a two-step deposition to avoid F ions etching to nano-SiO2 reinforcement. Journal of Alloys and Compounds, 2017, 705, 70-78.	2.8	53
98	Carbon-supported PtAu alloy nanoparticle catalysts for enhanced electrocatalytic oxidation of formic acid. Journal of Power Sources, 2011, 196, 8323-8330.	4.0	52
99	Decoration of Co/Co₃O₄ nanoparticles with Ru nanoclusters: a new strategy for design of highly active hydrogenation. Journal of Materials Chemistry A, 2015, 3, 11716-11719.	5.2	52
100	Construction of ultrafine and stable PtFe nano-alloy with ultra-low Pt loading for complete removal of CO in PROX at room temperature. Applied Catalysis B: Environmental, 2016, 180, 237-245.	10.8	51
101	Revealing the Role of Phase Structures of Bimetallic Nanocatalysts in the Oxygen Reduction Reaction. ACS Catalysis, 2018, 8, 11302-11313.	5.5	51
102	Comparative mouse lung injury by nickel nanoparticles with differential surface modification. Journal of Nanobiotechnology, 2019, 17, 2.	4.2	50
103	Design of Ternary Nanoalloy Catalysts: Effect of Nanoscale Alloying and Structural Perfection on Electrocatalytic Enhancement. Chemistry of Materials, 2012, 24, 4283-4293.	3.2	47
104	An EQCN assessment of electrocatalytic oxidation of methanol at nanostructured Auâ€“Pt alloy nanoparticles. Electrochemistry Communications, 2001, 3, 172-176.	2.3	46
105	Characterization of magnetic NiFe nanoparticles with controlled bimetallic composition. Journal of Alloys and Compounds, 2014, 587, 260-266.	2.8	46
106	Coreâ^'Shell-Structured Magnetic Ternary Nanocubes. Journal of the American Chemical Society, 2010, 132, 17686-17689.	6.6	45
107	Atomic Ordering Enhanced Electrocatalytic Activity of Nanoalloys for Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2013, 117, 20715-20721.	1.5	45
108	Platinumâ€“nickel nanowire catalysts with composition-tunable alloying and faceting for the oxygen reduction reaction. Journal of Materials Chemistry A, 2017, 5, 12557-12568.	5.2	45

#	Article	IF	Citations
109	Preparation and Characterization of Gold Nanoparticles Dispersed in Poly(2-hydroxyethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	1.6	44
110	X-Shaped Rigid Arylethynes to Mediate the Assembly of Nanoparticles. Journal of the American Chemical Society, 2007, 129, 5368-5369.	6.6	42
111	A self-healing coating based on facile pH-responsive nanocontainers for corrosion protection of magnesium alloy. Journal of Magnesium and Alloys, 2022, 10, 836-849.	5.5	42
112	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.	5.5	41
113	Nanostructured PtVFe catalysts: Electrocatalytic performance in proton exchange membrane fuel cells. Electrochemistry Communications, 2009, 11, 1139-1141.	2.3	40
114	Nanoscale alloying effect of goldâ€“platinum nanoparticles as cathode catalysts on the performance of a rechargeable lithiumâ€“oxygen battery. Nanotechnology, 2012, 23, 305404.	1.3	40
115	Nanoalloy Printed and Pulse-Laser Sintered Flexible Sensor Devices with Enhanced Stability and Materials Compatibility. ACS Nano, 2015, 9, 6168-6177.	7.3	40
116	Nano-Silicon composite materials with N-doped graphene of controllable and optimal pyridinic-to-pyrrolic structural ratios for lithium ion battery. Electrochimica Acta, 2019, 321, 134742.	2.6	39
117	Poisonous Species in Complete Ethanol Oxidation Reaction on Palladium Catalysts. Journal of Physical Chemistry C, 2019, 123, 20853-20868.	1.5	39
118	Quartz-crystal microbalance and spectrophotometric assessments of inter-core and inter-shell reactivities in nanoparticle thin film formation and growth. Journal of Materials Chemistry, 2001, 11, 1258-1264.	6.7	38
119	Assemblyâ^'Disassembly of DNAs and Gold Nanoparticles: A Strategy of Intervention Based on Oligonucleotides and Restriction Enzymes. Analytical Chemistry, 2008, 80, 6038-6044.	3.2	38
120	Pd decorated Fe/C nanocatalyst for formic acid electrooxidation. Electrochimica Acta, 2013, 111, 504-509.	2.6	38
121	Synthesis of Different Ruthenium Nickel Bimetallic Nanostructures and an Investigation of the Structureâ€“Activity Relationship for Benzene Hydrogenation to Cyclohexane. ChemCatChem, 2014, 6, 2039-2046.	1.8	38
122	Nanoparticle-Structured Highly Sensitive and Anisotropic Gauge Sensors. Small, 2015, 11, 4509-4516.	5.2	38
123	Multifunctional Fullerene-Mediated Assembly of Gold Nanoparticles. Chemistry of Materials, 2005, 17, 6528-6531.	3.2	37
124	Composition- and Structure-Tunable Goldâ€“Cobalt Nanoparticles and Electrocatalytic Synergy for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2016, 8, 20082-20091.	4.0	36
125	Design of Functional Nanoparticles and Assemblies for Theranostic Applications. ACS Applied Materials & Interfaces, 2014, 6, 21752-21768.	4.0	35
126	Probing pH-Tuned Morphological Changes in Coreâ^'Shell Nanoparticle Assembly Using Atomic Force Microscopy. Nano Letters, 2001, 1, 575-579.	4.5	34

#	Article	IF	Citations
127	Pt decorated PdAu/C nanocatalysts with ultralow Pt loading for formic acid electrooxidation. International Journal of Hydrogen Energy, 2012, 37, 9959-9966.	3.8	34
128	Flexibility characteristics of a polyethylene terephthalate chemiresistor coated with a nanoparticle thin film assembly. Journal of Materials Chemistry C, 2014, 2, 1893.	2.7	34
129	Kinetic and Thermodynamic Assessments of the Mediatorâ^'Template Assembly of Nanoparticles. Journal of Physical Chemistry B, 2005, 109, 2578-2583.	1.2	33
130	Electrocatalytic performance of Pt-based trimetallic alloy nanoparticle catalysts in proton exchange membrane fuel cells. International Journal of Hydrogen Energy, 2012, 37, 4627-4632.	3.8	33
131	Detection of mixed volatile organic compounds and lung cancer breaths using chemiresistor arrays with crosslinked nanoparticle thin films. Sensors and Actuators B: Chemical, 2016, 232, 292-299.	4.0	33
132	Deviations from Vegard's law and evolution of the electrocatalytic activity and stability of Pt-based nanoalloys inside fuel cells byin operandoX-ray spectroscopy and total scattering. Nanoscale, 2019, 11, 5512-5525.	2.8	33
133	Spectroscopic Characterizations of Molecularly Linked Gold Nanoparticle Assemblies upon Thermal Treatment. Langmuir, 2004, 20, 4254-4260.	1.6	32
134	Sensing Arrays Constructed from Nanoparticle Thin Films and Interdigitated Microelectrodes. Sensors, 2006, 6, 667-679.	2.1	32
135	Solving the nanostructure problem: exemplified on metallic alloy nanoparticles. Nanoscale, 2014, 6, 10048-10061.	2.8	32
136	Spontaneous reduction of O2 on PtVFe nanocatalysts. Catalysis Today, 2011, 165, 150-159.	2.2	31
137	Proton exchange membrane fuel cells with nanoengineered AuPt catalysts at the cathode. Journal of Power Sources, 2011, 196, 659-665.	4.0	31
138	Nanoalloy catalysts for electrochemical energy conversion and storage reactions. RSC Advances, 2014, 4, 42654-42669.	1.7	31
139	Preparation of PdCu Alloy Nanocatalysts for Nitrate Hydrogenation and Carbon Monoxide Oxidation. Catalysts, 2016, 6, 96.	1.6	31
140	Palladium modified gold nanoparticles as electrocatalysts for ethanol electrooxidation. Journal of Power Sources, 2016, 321, 264-269.	4.0	31
141	Atomic Scale Imaging: A Hands-On Scanning Probe Microscopy Laboratory for Undergraduates. Journal of Chemical Education, 2003, 80, 194.	1.1	30
142	Assembly of Gold Nanoparticles Mediated by Multifunctional Fullerenes. Langmuir, 2007, 23, 10715-10724.	1.6	30
143	Molecularly-mediated assembly of gold nanoparticles. Gold Bulletin, 2007, 40, 59-66.	3.2	30
144	Synthesis, Characterization and Potential Application of MnZn Ferrite and MnZn Ferrite@Au Nanoparticles. Journal of Nanoscience and Nanotechnology, 2009, 9, 3005-3012.	0.9	29

#	Article	IF	Citations
145	Nanoparticle-structured thin film sensor arrays for breath sensing. Sensors and Actuators B: Chemical, 2012, 161, 845-854.	4.0	28
146	Nanoparticleâ€“Nanofibrous Membranes as Scaffolds for Flexible Sweat Sensors. ACS Sensors, 2016, 1, 1060-1069.	4.0	28
147	Strain sensors fabricated by surface assembly of nanoparticles. Biosensors and Bioelectronics, 2021, 186, 113268.	5.3	28
148	An infrared reflectance spectroscopic study of a pH-tunable network of nanoparticles linked by hydrogen bonding. Analyst, The, 2000, 125, 17-20.	1.7	27
149	Oxophilicity and Structural Integrity in Maneuvering Surface Oxygenated Species on Nanoalloys for CO Oxidation. ACS Catalysis, 2013, 3, 3075-3085.	5.5	27
150	Bifunctional nanoparticles for SERS monitoring and magnetic intervention of assembly and enzyme cutting of DNAs. Journal of Materials Chemistry B, 2013, 1, 4320.	2.9	27
151	Effect of glucose on poly-Î³-glutamic acid metabolism in Bacillus licheniformis. Microbial Cell Factories, 2017, 16, 22.	1.9	27
152	Formation of Gold Nanoparticles Catalyzed by Platinum Nanoparticles:Â Assessment of the Catalytic Mechanism. Journal of Physical Chemistry B, 2006, 110, 22503-22509.	1.2	26
153	Nano-engineered PtVFe catalysts in proton exchange membrane fuel cells: Electrocatalytic performance. Electrochimica Acta, 2010, 55, 8230-8236.	2.6	26
154	A distinct atomic structureâ€“catalytic activity relationship in 3â€“10 nm supported Au particles. Nanoscale, 2014, 6, 532-538.	2.8	26
155	Structural dynamics and activity of nanocatalysts inside fuel cells by in operando atomic pair distribution studies. Nanoscale, 2016, 8, 10749-10767.	2.8	26
156	AFM Probing of Thermal Activation of Molecularly Linked Nanoparticle Assembly. Journal of Physical Chemistry B, 2004, 108, 9669-9677.	1.2	25
157	Pattern recognition for sensor array signals using Fuzzy ARTMAP. Sensors and Actuators B: Chemical, 2009, 141, 458-464.	4.0	25
158	Rigid, conjugated and shaped arylethynes as mediators for the assembly of gold nanoparticles. Journal of Materials Chemistry, 2011, 21, 1890-1901.	6.7	25
159	Nanoengineered PtVFe/C Cathode Electrocatalysts in PEM Fuel Cells: Catalyst Activity and Stability. ChemCatChem, 2011, 3, 583-593.	1.8	25
160	Resolving Atomic Ordering Differences in Group 11 Nanosized Metals and Binary Alloy Catalysts by Resonant High-Energy X-ray Diffraction and Computer Simulations. Journal of Physical Chemistry C, 2013, 117, 22131-22141.	1.5	25
161	Competitive Câ€“C and Câ€“H bond scission in the ethanol oxidation reaction on Cu(100) and the effect of an alkaline environment. Physical Chemistry Chemical Physics, 2017, 19, 15444-15453.	1.3	25
162	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.	5.2	25

#	Article	IF	Citations
163	Efficient low-temperature hydrogenation of acetone on bimetallic Pt-Ru/C catalyst. Journal of Catalysis, 2018, 363, 52-62.	3.1	25
164	Surface oxygenation of multicomponent nanoparticles toward active and stable oxidation catalysts. Nature Communications, 2020, 11, 4201.	5.8	25
165	Synthesis of Ultralong, Monodispersed, and Surfactant-Free Gold Nanowire Catalysts: Growth Mechanism and Electrocatalytic Properties for Methanol Oxidation Reaction. Journal of Physical Chemistry C, 2017, 121, 3108-3116.	1.5	24
166	A multi-module artificial neural network approach to pattern recognition with optimized nanostructured sensor array. Sensors and Actuators B: Chemical, 2006, 117, 65-73.	4.0	23
167	Probing interfacial interactions of bacteria on metal nanoparticles and substrates with different surface properties. International Journal of Antimicrobial Agents, 2010, 36, 549-556.	1.1	22
168	Origin of Enhanced Activities for CO Oxidation and O₂ Reaction over Composition-Optimized Pd₅₀Cu₅₀ Nanoalloy Catalysts. Journal of Physical Chemistry C, 2017, 121, 11010-11020.	1.5	22
169	Interfacial Mass Flux at 11-Mercaptoundecanoic Acid Linked Nanoparticle Assembly on Electrodes. Journal of Physical Chemistry B, 2002, 106, 9313-9321.	1.2	21
170	Chemical Analysis Using Scanning Force Microscopy. An Undergraduate Laboratory Experiment. Journal of Chemical Education, 2002, 79, 207.	1.1	21
171	Nanoparticle-Structured Ligand Framework as Electrode Interfaces. Electroanalysis, 2004, 16, 120-126.	1.5	20
172	Assessment of Morphological and Optical Properties of Molecularly Mediated Thin Film Assembly of Gold Nanoparticles. Journal of Physical Chemistry C, 2008, 112, 2448-2455.	1.5	20
173	Noble-transition metal nanoparticle breathing in a reactive gas atmosphere. Nanoscale, 2013, 5, 7379.	2.8	20
174	Surface Atomic Structure and Functionality of Metallic Nanoparticles: A Case Study of Auâ€“Pd Nanoalloy Catalysts. Journal of Physical Chemistry C, 2017, 121, 7854-7866.	1.5	20
175	Synthesis-atomic structure-properties relationships in metallic nanoparticles by total scattering experiments and 3D computer simulations: case of Ptâ€“Ru nanoalloy catalysts. Nanoscale, 2015, 7, 8122-8134.	2.8	19
176	DNA assembly and enzymatic cutting in solutions: a gold nanoparticle based SERS detection strategy. Analyst, The, 2013, 138, 4941.	1.7	18
177	Nanoalloy catalysts inside fuel cells: An atomic-level perspective on the functionality by combined in operando x-ray spectroscopy and total scattering. Nano Energy, 2018, 49, 209-220.	8.2	18
178	Surfaceâ€Mediated Interconnections of Nanoparticles in Cellulosic Fibrous Materials toward 3D Sensors. Advanced Materials, 2020, 32, e2002171.	11.1	18
179	Cationic recognition by tert-butylcalix[4]arene-functionalized nanoprobes. Physical Chemistry Chemical Physics, 2011, 13, 5824.	1.3	17
180	Design and electrochemical characterization of ternary alloy electrocatalysts for oxygen reduction reaction. Journal of Electroanalytical Chemistry, 2013, 688, 196-206.	1.9	17

#	Article	IF	Citations
181	Proteomic profiling of Bacillus licheniformis reveals a stress response mechanism in the synthesis of extracellular polymeric flocculants. Biotechnology and Bioengineering, 2016, 113, 797-806.	1.7	17
182	Compositionâ€“Structureâ€“Activity Correlation of Platinumâ€“Ruthenium Nanoalloy Catalysts for Ethanol Oxidation Reaction. Journal of Physical Chemistry C, 2017, 121, 17077-17087.	1.5	17
183	Reducing Pt use in the catalysts for formic acid electrooxidation via nanoengineered surface structure. Journal of Power Sources, 2014, 257, 45-51.	4.0	16
184	Electrochemically Actuated Mercury Pump for Fluid Flow and Delivery. Analytical Chemistry, 2001, 73, 103-110.	3.2	15
185	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.	1.9	15
186	Nanoalloying and phase transformations during thermal treatment of physical mixtures of Pd and Cu nanoparticles. Science and Technology of Advanced Materials, 2014, 15, 025002.	2.8	14
187	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.	5.2	14
188	Hollow copperâ€“ceria microspheres with single and multiple shells for preferential CO oxidation. CrystEngComm, 2019, 21, 3619-3626.	1.3	14
189	Dendritic Arenethiol-Based Capping Strategy for Engineering Size and Surface Reactivity of Gold Nanoparticles. Chemistry of Materials, 2010, 22, 5918-5928.	3.2	13
190	Synthesis of Gold Nanoparticles. Comprehensive Analytical Chemistry, 2014, 66, 37-79.	0.7	13
191	An aggregative growth process for controlling size, shape and composition of metal, alloy and coreâ€“shell nanoparticles toward desired bioapplications. Journal of Materials Chemistry B, 2014, 2, 6904-6916.	2.9	13
192	SERS nanoprobes for bio-application. Frontiers of Chemical Science and Engineering, 2015, 9, 428-441.	2.3	13
193	â€˜Squeezedâ€™ interparticle properties for plasmonic coupling and SERS characteristics of duplex DNA conjugated/linked gold nanoparticles of homo/hetero-sizes. Nanotechnology, 2016, 27, 325706.	1.3	13
194	Copper-alloy catalysts: structural characterization and catalytic synergies. Catalysis Science and Technology, 2021, 11, 5712-5733.	2.1	13
195	Coupling a titanium dioxide based heterostructure photoanode with electroless-deposited nickel-phosphorus alloy coating on magnesium alloy for enhanced corrosion protection. Journal of Materials Science and Technology, 2022, 126, 252-265.	5.6	13
196	Nano-architectures of ordered hollow carbon spheres filled with carbon webs by template-free controllable synthesis. Nanotechnology, 2012, 23, 485404.	1.3	12
197	Synergistic catalytic properties of bifunctional nanoalloy catalysts in rechargeable lithium-oxygen battery. Journal of Power Sources, 2016, 326, 60-69.	4.0	12
198	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.	4.0	12

#	Article	IF	Citations
199	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.	2.1	12
200	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.	0.0	11
201	An Infrared Reflection Spectroscopic Assessment of Interfacial Derivatization and Reactivity at Inter-Shell Linked Nanoparticle Films. Langmuir, 2000, 16, 9639-9644.	1.6	10
202	Harnessing moleculeâ€“solid duality of nanoclusters/nanoparticles for nanoscale control of size, shape and alloying. Chemical Communications, 2011, 47, 9885.	2.2	9
203	CO oxidation on supported platinum group metal (PGM) based nanoalloys. Science China Chemistry, 2015, 58, 14-28.	4.2	9
204	Phase properties of carbon-supported platinumâ€“gold nanoparticles for formic acid eletro-oxidation. Journal of Power Sources, 2015, 294, 201-207.	4.0	9
205	Effect of surface physicochemical properties on the flocculation behavior of Bacillus licheniformis. RSC Advances, 2017, 7, 16049-16056.	1.7	9
206	A nickel-underlayer/LDH-midlayer/siloxane-toplayer composite coating for inhibiting galvanic corrosion between Ni layer and Mg alloy. Chemical Engineering Journal, 2022, 430, 132776.	6.6	9
207	Stability of Interdigitated Microelectrodes of Flexible Chemiresistor Sensors. Journal of Display Technology, 2012, 8, 377-384.	1.3	8
208	Determination of ion pairing on capping structures of gold nanoparticles by phase extraction. Analyst, The, 2015, 140, 6239-6244.	1.7	8
209	Engineering Active Sites of Gold-Cuprous Oxide Catalysts for Electrocatalytic Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2021, 13, 46577-46587.	4.0	8
210	Palladiumâ€“Gold Alloy Nanowireâ€Structured Interface for Hydrogen Sensing. ChemPlusChem, 2015, 80, 722-730.	1.3	7
211	Electron Dose-Controlled Formation, Growth, and Assembly of Nanoclusters and Nanoparticles from Aurophilic Au(I)â€“Thiolate Ensemble on Surfaces. ACS Applied Materials & Interfaces, 2018, 10, 40348-40357.	4.0	7
212	A simple vaporous probe with atomic-scale sensitivity to structural ordering and orientation of molecular assembly. Chemical Science, 2019, 10, 7104-7110.	3.7	7
213	Magneto-Plasmonic Nanoparticle Grid Biosensor with Enhanced Raman Scattering and Electrochemical Transduction for the Development of Nanocarriers for Targeted Delivery of Protected Anticancer Drugs. Nanomaterials, 2021, 11, 1326.	1.9	7
214	Formation of Water-Soluble Iron Oxide Nanoparticles Derived from Iron Storage Protein. Journal of Nanoscience and Nanotechnology, 2004, 4, 708-711.	0.9	6
215	Nanoscale Alloying in Electrocatalysts. Catalysts, 2015, 5, 1465-1478.	1.6	6
216	Harnessing the interparticle J-aggregate induced plasmonic coupling for surface-enhanced Raman scattering. Physical Chemistry Chemical Physics, 2015, 17, 28529-28533.	1.3	6

#	Article	IF	Citations
217	Assessment of aggregative growth of MnZn ferrite nanoparticles. Nanoscale, 2016, 8, 19359-19367.	2.8	6
218	Nanoparticle Based Printed Sensors on Paper for Detecting Chemical Species. , 2017, , .		6
219	Lattice Strain and Surface Activity of Ternary Nanoalloys under the Propane Oxidation Condition. ACS Applied Materials & Interfaces, 2022, 14, 11435-11447.	4.0	6
220	Nano-Filamented Textile Sensor Platform with High Structure Sensitivity. ACS Applied Materials & Interfaces, 2022, 14, 15391-15400.	4.0	6
221	Combinatorial Assessment of the Activity-Composition Correlation for Several Alloy Nanoparticle Catalysts. Industrial & Engineering Chemistry Research, 2008, 47, 4675-4682.	1.8	5
222	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.	1.5	5
223	Assessing the Role of Capping Molecules in Controlling Aggregative Growth of Gold Nanoparticles in Heated Solution. Chemistry - an Asian Journal, 2016, 11, 120-127.	1.7	5
224	Assessing Interparticle Spatial Characteristics of DNA-Linked Coreâ€“Shell Nanoparticles with or without Magnetic Cores in Surface Enhanced Raman Scattering. Journal of Physical Chemistry C, 2017, 121, 15767-15776.	1.5	5
225	Nanoscale Lacing by Electrons. Small, 2018, 14, 1800598.	5.2	5
226	Evolution of surface catalytic sites on thermochemically-tuned goldâ€“palladium nanoalloys. Nanoscale, 2018, 10, 3849-3862.	2.8	5
227	A multifunctional anode with P-doped Si nanoparticles in a stress-buffering network of poly-Î³-glutamate and graphene. Chemical Communications, 2020, 56, 14412-14415.	2.2	5
228	Silverâ€“Copper Alloy Nanoinks for Ambient Temperature Sintering. Langmuir, 2022, 38, 5633-5644.	1.6	5
229	Chemiresistive properties regulated by nanoscale curvature in molecularly-linked nanoparticle composite assembly. Nanoscale, 2017, 9, 4013-4023.	2.8	4
230	Assessing Plasmonic Nanoprobes in Electromagnetic Field Enhancement for SERS Detection of Biomarkers. Sensors, 2021, 21, 8345.	2.1	4
231	Titration of gold nanoparticles in phase extraction. Analyst, The, 2015, 140, 8023-8032.	1.7	3
232	Molecularly-tunable nanoelectrode arrays created by harnessing intermolecular interactions. Chemical Science, 2021, 12, 6081-6090.	3.7	3
233	On the Counterâ€intuitive Heterogeneous Electron Transfer Barrier Properties of Alkanethiolate Monolayers on Gold: Smooth versus Rough Surfaces. Electroanalysis, 2022, 34, 1936-1952.	1.5	3
234	A Low-Current and Multi-Channel Chemiresistor Array Sensor Device. Sensors, 2022, 22, 2781.	2.1	3

#	Article	IF	Citations
235	Characterizations of Core-Shell Nanoparticle Catalysts for Methanol Electrooxidation. Materials Research Society Symposia Proceedings, 2002, 756, 1.	0.1	2
236	Assembly/Disassembly of DNA-Au Nanoparticles: A Strategy of Intervention. Research Letters in Nanotechnology, 2008, 2008, 1-4.	0.3	2
237	Biomolecular Recognition: Nanotransduction and Nanointervention. ACS Symposium Series, 2012, , 119-146.	0.5	2
238	Sensors: Nanoparticle-Structured Highly Sensitive and Anisotropic Gauge Sensors (Small 35/2015). Small, 2015, 11, 4508-4508.	5.2	2
239	Effect of Chemical Composition on the Nanoscale Ordering Transformations of Physical Mixtures of Pd and Cu Nanoparticles. Journal of Nanomaterials, 2018, 2018, 1-10.	1.5	2
240	Nanoparticle Assembly via Hydrogen-Bonding: IRS, TEM and AFM Characterizations. Materials Research Society Symposia Proceedings, 2001, 635, C4.5.1.	0.1	1
241	Synthesis of Bimetallic AuPt Nanoparticles in Aqueous Solution and Electrocatalytic Activity. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	1
242	Harvesting Nanocatalytic Heat Localized in Nanoalloy Catalyst as a Heat Source in a Nanocomposite Thin Film Thermoelectric Device. Langmuir, 2015, 31, 11158-11163.	1.6	1
243	Multimetallic Catalysts and Electrocatalysts: Dynamic Coreâ€“Shell Nanostructures. Nanostructure Science and Technology, 2021, , 61-82.	0.1	1
244	Electrical and Electrochemical Properties of Nanocomposite Thin Films Formed by Exchange-Precipitation Route from Nanocrystals and Organic Cross-Linkers. Materials Research Society Symposia Proceedings, 1999, 598, 309.	0.1	0
245	Characterizations of Nanostructured Films as Responsive Electrode Materials. Materials Research Society Symposia Proceedings, 2001, 704, 9291.	0.1	0
246	Organic-Inorganic Network Assembles of Nanoparticles as Chemically Sensitive Interfacial Materials. Materials Research Society Symposia Proceedings, 2001, 710, 1.	0.1	0
247	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
248	Interfacial Ion Fluxes at Nanostructured Thin Films. Materials Research Society Symposia Proceedings, 2002, 752, 1.	0.1	0
249	A Thermogravimetric Study of Alakanethiolate Monolayer-Capped Gold Nanoparticle Catalysts. Materials Research Society Symposia Proceedings, 2003, 789, 45.	0.1	0
250	Nanostructured Materials for Microfluidic Sensing Application. Materials Research Society Symposia Proceedings, 2003, 782, 1.	0.1	0
251	A Kinetic Study of Mediator-Template Assembly of Gold Nanoparticles. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0
252	Silica-Supported Au and Pt Nanoparticles and CO Adsorption. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0

#	Article	IF	Citations
253	Iron Oxide Composite Nanoparticles and Sensing Properties. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0