Wenxin Niu

List of Publications by Year
in descending order

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82 papers	6,974 citations	81900 39 h-index	66911 78 g-index
86 all docs	86 docs citations	86 times ranked	9799 citing authors

#	Article	IF	Citations
1	Two-Dimensional Metal Nanomaterials: Synthesis, Properties, and Applications. Chemical Reviews, 2018, 118, 6409-6455.	47.7	711
2	Shape-Controlled Synthesis of Single-Crystalline Palladium Nanocrystals. ACS Nano, 2010, 4, 1987-1996.	14.6	380
3	Selective Synthesis of Single-Crystalline Rhombic Dodecahedral, Octahedral, and Cubic Gold Nanocrystals. Journal of the American Chemical Society, 2009, 131, 697-703.	13.7	316
4	Surface Plasmon-Driven Water Reduction: Gold Nanoparticle Size Matters. Journal of the American Chemical Society, 2014, 136, 9842-9845.	13.7	301
5	Environmentally Friendly and Highly Sensitive Ruthenium(II) Tris(2,2â€²-bipyridyl) Electrochemiluminescent System Using 2-(Dibutylamino)ethanol as Co-Reactant. Angewandte Chemie - International Edition, 2007, 46, 421-424.	13.8	288
6	Highly Symmetric Gold Nanostars: Crystallographic Control and Surface-Enhanced Raman Scattering Property. Journal of the American Chemical Society, 2015, 137, 10460-10463.	13.7	261
7	Seed-Mediated Growth of Nearly Monodisperse Palladium Nanocubes with Controllable Sizes. Crystal Growth and Design, 2008, 8, 4440-4444.	3.0	230
8	Synthesis and applications of noble metal nanocrystals with high-energy facets. Nano Today, 2012, 7, 586-605.	11.9	224
9	Crystal phase-based epitaxial growth of hybrid noble metal nanostructures on 4H/fcc Au nanowires. Nature Chemistry, 2018, 10, 456-461.	13.6	220
10	Simultaneous electrochemical determination of uric acid, dopamine, and ascorbic acid at single-walled carbon nanohorn modified glassy carbon electrode. Biosensors and Bioelectronics, 2009, 25, 940-943.	10.1	214
11	Solvothermal synthesis of metal nanocrystals and their applications. Nano Today, 2015, 10, 240-267.	11.9	206
12	Ultrathin Twoâ€Ðimensional Organicâ€“Inorganic Hybrid Perovskite Nanosheets with Bright, Tunable Photoluminescence and High Stability. Angewandte Chemie - International Edition, 2017, 56, 4252-4255.	13.8	206
13	Amperometric glucose biosensor based on single-walled carbon nanohorns. Biosensors and Bioelectronics, 2008, 23, 1887-1890.	10.1	188
14	Ethylene Selectivity in Electrocatalytic CO₂ Reduction on Cu Nanomaterials: A Crystal Phase-Dependent Study. Journal of the American Chemical Society, 2020, 142, 12760-12766.	13.7	183
15	Halide Anions as Shape-Directing Agents for Obtaining High-Quality Anisotropic Gold Nanostructures. Chemistry of Materials, 2013, 25, 1392-1399.	6.7	181
16	Crystallographic control of noble metal nanocrystals. Nano Today, 2011, 6, 265-285.	11.9	175
17	Seed-mediated growth of noble metal nanocrystals: crystal growth and shape control. Nanoscale, 2013, 5, 3172.	5.6	173
18	A Template-Free and Surfactant-Free Method for High-Yield Synthesis of Highly Monodisperse 3-Aminophenolâ€“Formaldehyde Resin and Carbon Nano/Microspheres. Macromolecules, 2013, 46, 140-145.	4.8	155

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19	Submonolayered Ru Deposited on Ultrathin Pd Nanosheets used for Enhanced Catalytic Applications. Advanced Materials, 2016, 28, 10282-10286.	21.0	148
20	Electrochemiluminescence from tris(2,2â€²-bipyridyl)ruthenium(II)â€“grapheneâ€“Nafion modified electrode. Talanta, 2009, 79, 165-170.	5.5	129
21	Pdâ€“Pb Alloy Nanocrystals with Tailored Composition for Semihydrogenation: Taking Advantage of Catalyst Poisoning. Angewandte Chemie - International Edition, 2015, 54, 8271-8274.	13.8	125
22	Glucose biosensor based on gold nanoparticle-catalyzed luminol electrochemiluminescence on a three-dimensional solâ€“gel network. Electrochemistry Communications, 2008, 10, 1250-1253.	4.7	97
23	Heterophase fcc-2H-fcc gold nanorods. Nature Communications, 2020, 11, 3293.	12.8	92
24	Single-walled carbon nanohorn as new solid-phase extraction adsorbent for determination of 4-nitrophenol in water sample. Talanta, 2009, 79, 1441-1445.	5.5	91
25	Synthesis of Convex Hexoctahedral Palladium@Gold Coreâ€“Shell Nanocrystals with {431} High-Index Facets with Remarkable Electrochemiluminescence Activities. ACS Nano, 2014, 8, 5953-5958.	14.6	76
26	Unveiling One-Pot Template-Free Fabrication of Exquisite Multidimensional PtNi Multicube Nanoarchitectonics for the Efficient Electrochemical Oxidation of Ethanol and Methanol with a Great Tolerance for CO. ACS Applied Materials & Interfaces, 2020, 12, 31309-31318.	8.0	73
27	Controlled Synthesis of Palladium Concave Nanocubes with Sub-10-Nanometer Edges and Corners for Tunable Plasmonic Property. Chemistry of Materials, 2014, 26, 2180-2186.	6.7	72
28	Pressure-Induced Phase Engineering of Gold Nanostructures. Journal of the American Chemical Society, 2018, 140, 15783-15790.	13.7	68
29	Hydrogen peroxide biosensor based on direct electrochemistry of soybean peroxidase immobilized on single-walled carbon nanohorn modified electrode. Biosensors and Bioelectronics, 2009, 24, 1159-1163.	10.1	64
30	Unconventional-Phase Crystalline Materials Constructed from Multiscale Building Blocks. Chemical Reviews, 2021, 121, 5830-5888.	47.7	57
31	Selective Epitaxial Growth of Rh Nanorods on 2H/fcc Heterophase Au Nanosheets to Form 1D/2D Rhâ€“Au Heterostructures for Highly Efficient Hydrogen Evolution. Journal of the American Chemical Society, 2021, 143, 4387-4396.	13.7	56
32	Facile synthesis and electrochemiluminescence application of concave trisoctahedral Pd@Au coreâ€“shell nanocrystals bound by {331} high-index facets. Chemical Communications, 2011, 47, 10353.	4.1	54
33	Shaping Gold Nanocrystals in Dimethyl Sulfoxide: Toward Trapezohedral and Bipyramidal Nanocrystals Enclosed by {311} Facets. Journal of the American Chemical Society, 2017, 139, 5817-5826.	13.7	48
34	Carbon-supported Pd nanocatalyst modified by non-metal phosphorus for the oxygen reduction reaction. Journal of Power Sources, 2008, 182, 91-94.	7.8	46
35	Atomic origins of high electrochemical CO₂reduction efficiency on nanoporous gold. Nanoscale, 2018, 10, 8372-8376.	5.6	46
36	Tip-Selective Growth of Silver on Gold Nanostars for Surface-Enhanced Raman Scattering. ACS Applied Materials & Interfaces, 2018, 10, 14850-14856.	8.0	46

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37	Facet-Dependent Catalytic Performance of Au Nanocrystals for Electrochemical Nitrogen Reduction. ACS Applied Materials & Interfaces, 2020, 12, 41613-41619.	8.0	42
38	Synthesis of Chiral Au Nanocrystals with Precise Homochiral Facets for Enantioselective Surface Chemistry. Nano Letters, 2022, 22, 2915-2922.	9.1	42
39	Effect of hydroxyl and amino groups on electrochemiluminescence activity of tertiary amines at low tris(2,2â€²-bipyridyl)ruthenium(II) concentrations. Talanta, 2010, 81, 44-47.	5.5	40
40	Dodecahedral Gold Nanocrystals: The Missing Platonic Shape. Journal of the American Chemical Society, 2014, 136, 3010-3012.	13.7	39
41	Seed-mediated growth of palladium nanocrystals: The effect of pseudo-halide thiocyanate ions. Nanoscale, 2011, 3, 678-682.	5.6	37
42	Tuning Interior Nanogaps of Double-shelled Au/Ag Nanoboxes for Surface-Enhanced Raman Scattering. Scientific Reports, 2015, 5, 8382.	3.3	35
43	PtCuâ€“O highly excavated octahedral nanostructures built with nanodendrites for superior alcohol electrooxidation. Journal of Materials Chemistry A, 2019, 7, 8568-8572.	10.3	32
44	Surface Molecular Functionalization of Unusual Phase Metal Nanomaterials for Highly Efficient Electrochemical Carbon Dioxide Reduction under Industryâ€Relevant Current Density. Small, 2022, 18, e2106766.	10.0	30
45	Lead-free hybrid perovskite photocatalysts: surface engineering, charge-carrier behaviors, and solar-driven applications. Journal of Materials Chemistry A, 2022, 10, 12296-12316.	10.3	29
46	Hierarchical concave layered triangular PtCu alloy nanostructures: rational integration of dendritic nanostructures for efficient formic acid electrooxidation. Nanoscale, 2018, 10, 9369-9375.	5.6	28
47	Pdâ€“Pb Alloy Nanocrystals with Tailored Composition for Semihydrogenation: Taking Advantage of Catalyst Poisoning. Angewandte Chemie, 2015, 127, 8389-8392.	2.0	27
48	Concave and duck web-like platinum nanopentagons with enhanced electrocatalytic properties for formic acid oxidation. Journal of Materials Chemistry A, 2016, 4, 807-812.	10.3	27
49	Seed-mediated growth method for high-quality noble metal nanocrystals. Science China Chemistry, 2012, 55, 2311-2317.	8.2	26
50	Facet-dependent electrocatalytic activities of Pd nanocrystals toward the electro-oxidation of hydrazine. Electrochemistry Communications, 2013, 37, 57-60.	4.7	26
51	Unusual 4H-phase twinned noble metal nanokites. Nature Communications, 2019, 10, 2881.	12.8	25
52	Application of Ceramic Carbon Materials for Solid-Phase Extraction of Organic Compounds. Analytical Chemistry, 2006, 78, 1345-1348.	6.5	24
53	A Platinum Highly Concave Cube with one Leg on each Vertex as an Advanced Nanocatalyst for Electrocatalytic Applications. ChemCatChem, 2015, 7, 1064-1069.	3.7	24
54	Synthesis and electrocatalytic properties of tetrahexahedral, polyhedral, and branched Pd@Au coreâ€“shell nanocrystals. Chemical Communications, 2013, 49, 8836.	4.1	23

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55	One-pot synthesis of gold nanorods using binary surfactant systems with improved monodispersity, dimensional tunability and plasmon resonance scattering properties. Nanotechnology, 2014, 25, 125601.	2.6	23
56	A Generalized Method for the Synthesis of Ligand-Free M@SiO₂ (M = Ag, Au, Pd, Pt) Yolkâ€“Shell Nanoparticles. Langmuir, 2017, 33, 3281-3286.	3.5	22
57	In-Situ Probing of Crystal-Phase-Dependent Photocatalytic Activities of Au Nanostructures by Surface-Enhanced Raman Spectroscopy. , 2020, 2, 409-414.		22
58	Unveiling the Actual Catalytic Sites in Nanozymeâ€Catalyzed Oxidation of oâ€Phenylenediamine. Small, 2021, 17, e2104083.	10.0	21
59	Determination of isocyanates by capillary electrophoresis with tris(2,2â€²â€bipyridine)ruthenium(II) electrochemiluminescence. Electrophoresis, 2009, 30, 3926-3931.	2.4	20
60	Modulating the oxophilic properties of inorganic nanomaterials for electrocatalysis of small carbonaceous molecules. Nano Today, 2019, 29, 100802.	11.9	20
61	Highly Excavated Octahedral Nanostructures Integrated from Ultrathin Mesoporous PtCu₃ Nanosheets: Construction of Threeâ€Dimensional Open Surfaces for Enhanced Electrocatalysis. Small, 2019, 15, e1804407.	10.0	19
62	A trace ppb-level electrochemical H2S sensor based on ultrathin Pt nanotubes. Talanta, 2021, 233, 122539.	5.5	19
63	Suppressing photoinduced charge recombination at the BiVO4||NiOOH junction by sandwiching an oxygen vacancy layer for efficient photoelectrochemical water oxidation. Journal of Colloid and Interface Science, 2022, 608, 1116-1125.	9.4	19
64	Tris(2,2â€²-bipyridyl)ruthenium(II) electrochemiluminescent detection of coreactants containing aromatic diol group by the interaction between diol and borate anion. Electrochemistry Communications, 2007, 9, 2666-2670.	4.7	18
65	Pd@Au coreâ€“shell nanocrystals with concave cubic shapes: kinetically controlled synthesis and electrocatalytic properties. Faraday Discussions, 2013, 164, 175.	3.2	18
66	A Novel Photochemical Method for the Synthesis of Au Triangular Nanoplates inside Nanocavity of Mesoporous Silica Shells. Journal of Physical Chemistry C, 2017, 121, 9572-9578.	3.1	18
67	Highly enantioselective electrochemical sensing based on helicoid Au nanoparticles with intrinsic chirality. Sensors and Actuators B: Chemical, 2022, 362, 131757.	7.8	16
68	Volume-confined synthesis of ligand-free gold nanoparticles with tailored sizes for enhanced catalytic activity. Chemical Physics Letters, 2014, 613, 95-99.	2.6	15
69	CEC with tris(2,2â€²â€bipyridyl) ruthenium(II) electrochemiluminescent detection. Electrophoresis, 2008, 29, 4475-4481.	2.4	13
70	Sandwich-structured Fe₂O₃@SiO₂@Au nanoparticles with magnetoplasmonic responses. Journal of Materials Chemistry C, 2015, 3, 11645-11652.	5.5	13
71	Surface engineering of Rh-modified Pd nanocrystals by colloidal underpotential deposition for electrocatalytic methanol oxidation. Nanoscale, 2021, 13, 5284-5291.	5.6	13
72	Non-centrosymmetric Hollow BiOCl Nanocaps with Tailored Openings for the Photocatalytic Degradation of Rhodamine B. ACS Applied Nano Materials, 2022, 5, 2326-2334.	5.0	11

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73	Rotating minidiskâ€“disk electrodes. Electrochemistry Communications, 2007, 9, 1434-1438.	4.7	10
74	Dual roles of underpotential deposition in the synthesis of tetrahexahedral Pdâ€“Ag alloy nanocrystals. Chemical Communications, 2020, 56, 14849-14852.	4.1	7
75	Boosting chiral amplification in plasmon-coupled circular dichroism using discrete silver nanorods as amplifiers. Chemical Communications, 2021, 57, 7390-7393.	4.1	6
76	Iodide-Switched Deposition for the Synthesis of Segmented Pdâ€“Auâ€“Pd Nanorods: Crystal Facet Matters. Langmuir, 2017, 33, 12254-12259.	3.5	5
77	Designer Goldâ€Framed Palladium Nanocubes for Plasmonâ€Enhanced Electrocatalytic Oxidation of Ethanol. Chemistry - A European Journal, 2022, 28, .	3.3	5
78	New electrochemiluminescence catalyst: Cu2O semiconductor crystal and the enhanced activity of octahedra synthesized by iodide ions coordination. Materials Research Express, 2017, 4, 115021.	1.6	3
79	Hard nanocrystalline gold materials prepared via high-pressure phase transformation. Nano Research, 0, , .	10.4	3
80	Metallic Nanostructures: Fundamentals. , 2015, , 1-47.		2
81	Copper and iron mediated growth of surfactantâ€free PtCu and PtFe advanced electrocatalysts for water oxidation and oxygen reduction. Electrochemical Science Advances, 0, , e2100033.	2.8	1
82	A Platinum Highly Concave Cube with one Leg on each Vertex as an Advanced Nanocatalyst for Electrocatalytic Applications. ChemCatChem, 2015, 7, 1033-1033.	3.7	0