

Beatriz Roldan Cuenya

List of Publications by Year in Descending Order

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Version: 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

191
papers

15,366
citations

62
h-index

121
g-index

219
ext. papers

18,854
ext. citations

10.7
avg, IF

7.35
L-index

#	Paper	IF	Citations
191	Releasing the Bubbles: Nanotopographical Electrocatalyst Design for Efficient Photoelectrochemical Hydrogen Production in Microgravity Environment.. <i>Advanced Science</i> , 2022 , e2105380	13.6	2
190	Property-reactivity relations of N-doped PEM fuel cell cathode catalyst supports. <i>Applied Catalysis B: Environmental</i> , 2022 , 306, 121118	21.8	2
189	Steering the structure and selectivity of CO ₂ electroreduction catalysts by potential pulses. <i>Nature Catalysis</i> , 2022 , 5, 259-267	36.5	15
188	Adatom Bonding Sites in a Nickel-Fe O (001) Single-Atom Model Catalyst and O Reactivity Unveiled by Surface Action Spectroscopy with Infrared Free-Electron Laser Light.. <i>Angewandte Chemie - International Edition</i> , 2022 , e202202561	16.4	0
187	Tracking the phase changes in micelle-based NiGa nanocatalysts for methanol synthesis under activation and working conditions. <i>Journal of Catalysis</i> , 2021 , 405, 183-183	7.3	0
186	Dynamic transformation of cubic copper catalysts during CO electroreduction and its impact on catalytic selectivity. <i>Nature Communications</i> , 2021 , 12, 6736	17.4	10
185	Plasma-assisted oxidation of Cu(100) and Cu(111). <i>Chemical Science</i> , 2021 , 12, 14241-14253	9.4	3
184	Operando high-pressure investigation of size-controlled CuZn catalysts for the methanol synthesis reaction. <i>Nature Communications</i> , 2021 , 12, 1435	17.4	15
183	Crystallographic Orientation Dependence of Surface Segregation and Alloying on PdCu Catalysts for CO Hydrogenation. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 2570-2575	6.4	3
182	Role of the Oxide Support on the Structural and Chemical Evolution of Fe Catalysts during the Hydrogenation of CO ₂ . <i>ACS Catalysis</i> , 2021 , 11, 6175-6185	13.1	8
181	Selectivity Control of Cu Nanocrystals in a Gas-Fed Flow Cell through CO Pulsed Electroreduction. <i>Journal of the American Chemical Society</i> , 2021 , 143, 7578-7587	16.4	35
180	Revealing the CO Coverage-Driven C-C Coupling Mechanism for Electrochemical CO Reduction on CuO Nanocubes Raman Spectroscopy. <i>ACS Catalysis</i> , 2021 , 11, 7694-7701	13.1	38
179	Surface oxygen Vacancies on Reduced Co O (100): Superoxide Formation and Ultra-Low-Temperature CO Oxidation. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 16514-16520	16.4	12
178	Surface oxygen Vacancies on Reduced Co ₃ O ₄ (100): Superoxide Formation and Ultra-Low-Temperature CO Oxidation. <i>Angewandte Chemie</i> , 2021 , 133, 16650	3.6	4
177	Identifying Structure-Selectivity Correlations in the Electrochemical Reduction of CO ₂ : A Comparison of Well-Ordered Atomically Clean and Chemically Etched Copper Single-Crystal Surfaces. <i>Angewandte Chemie</i> , 2021 , 133, 19318-19324	3.6	5
176	Development of a single crystal sample holder for interfacing ultrahigh vacuum and electrochemical experimentation. <i>Review of Scientific Instruments</i> , 2021 , 92, 074104	1.7	2
175	Potential-Dependent Morphology of Copper Catalysts During CO Electroreduction Revealed by In Situ Atomic Force Microscopy. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 2561-2568	16.4	40

174	/ Electrocatalyst Characterization by X-ray Absorption Spectroscopy. <i>Chemical Reviews</i> , 2021 , 121, 882-968.1	127
173	Three-way catalysis with bimetallic supported Pd-Au catalysts: Gold as a poison and as a promotor. <i>Applied Catalysis B: Environmental</i> , 2021 , 282, 119614	21.8 4
172	Pt-Sn-Co nanocubes as highly active catalysts for ethanol electro-oxidation. <i>Journal of Catalysis</i> , 2021 , 393, 247-258	7.3 7
171	Potentialabhängige Morphologie von Kupferkatalysatoren während der Elektroreduktion von CO ₂ , ermittelt durch In-situ-Rasterkraftmikroskopie. <i>Angewandte Chemie</i> , 2021 , 133, 2591-2599	3.6 4
170	Structural Evolution of Ga-Cu Model Catalysts for CO Hydrogenation Reactions. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 1361-1367	3.8 1
169	Dynamic Imaging of Nanostructures in an Electrolyte with a Scanning Electron Microscope. <i>Microscopy and Microanalysis</i> , 2021 , 27, 121-128	0.5 3
168	Operando Investigation of Ag-Decorated Cu ₂ O Nanocube Catalysts with Enhanced CO Electroreduction toward Liquid Products. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 7426-7435	16.4 41
167	In situ and operando electron microscopy in heterogeneous catalysis-insights into multi-scale chemical dynamics. <i>Journal of Physics Condensed Matter</i> , 2021 , 33, 153001	1.8 6
166	Operando-Untersuchung von Ag-dekorierten Cu ₂ O-Nanowürfeln-Katalysatoren mit verbesserter CO ₂ -Elektroreduktion zu Flüssigprodukten. <i>Angewandte Chemie</i> , 2021 , 133, 7502-7511	3.6 4
165	Comparison of Thermal Annealing Hydrothermal Treatment Effects on the Detection Performances of ZnO Nanowires. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 10537-10552	9.5 5
164	Identifying Structure-Selectivity Correlations in the Electrochemical Reduction of CO : A Comparison of Well-Ordered Atomically Clean and Chemically Etched Copper Single-Crystal Surfaces. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 19169-19175	16.4 22
163	Understanding Structure-Property Relationships in Nanoparticle Electrocatalysts through Correlated Electron Microscopies. <i>Microscopy and Microanalysis</i> , 2021 , 27, 52-53	0.5
162	Creation of Exclusive Artificial Cluster Defects by Selective Metal Removal in the (Zn, Zr) Mixed-Metal UiO-66. <i>Journal of the American Chemical Society</i> , 2021 ,	16.4 4
161	In-situ structure and catalytic mechanism of NiFe and CoFe layered double hydroxides during oxygen evolution. <i>Nature Communications</i> , 2020 , 11, 2522	17.4 273
160	Revealing the Active Phase of Copper during the Electroreduction of CO in Aqueous Electrolyte by Correlating X-ray Spectroscopy and Electron Microscopy. <i>ACS Energy Letters</i> , 2020 , 5, 2106-2111	20.1 54
159	Linking the evolution of catalytic properties and structural changes in copper-zinc nanocatalysts using EXAFS and neural-networks. <i>Chemical Science</i> , 2020 , 11, 3727-3736	9.4 21
158	The role of in situ generated morphological motifs and Cu(i) species in C ₂ + product selectivity during CO ₂ pulsed electroreduction. <i>Nature Energy</i> , 2020 , 5, 317-325	62.3 165
157	Electrocatalytic CO Reduction on CuO Nanocubes: Tracking the Evolution of Chemical State, Geometric Structure, and Catalytic Selectivity using Operando Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 17974-17983	16.4 62

156	Interface-related magnetic and vibrational properties in Fe/MgO heterostructures from nuclear resonant spectroscopy and first-principles calculations. <i>Physical Review Materials</i> , 2020 , 4,	3.2	2
155	On the reversible deactivation of cobalt ferrite spinel nanoparticles applied in selective 2-propanol oxidation. <i>Journal of Catalysis</i> , 2020 , 382, 57-68	7.3	17
154	Uncovering the electrochemical interface of low-index copper surfaces in deep groundwater environments. <i>Electrochimica Acta</i> , 2020 , 362, 137111	6.7	3
153	Assessing the Influence of Supercritical Carbon Dioxide on the Electrochemical Reduction to Formic Acid Using Carbon-Supported Copper Catalysts. <i>ACS Catalysis</i> , 2020 , 10, 12783-12789	13.1	8
152	Electrocatalytic CO ₂ Reduction on CuOx Nanocubes: Tracking the Evolution of Chemical State, Geometric Structure, and Catalytic Selectivity using Operando Spectroscopy. <i>Angewandte Chemie</i> , 2020 , 132, 18130-18139	3.6	29
151	Imaging electrochemically synthesized CuO cubes and their morphological evolution under conditions relevant to CO electroreduction. <i>Nature Communications</i> , 2020 , 11, 3489	17.4	60
150	Key role of chemistry versus bias in electrocatalytic oxygen evolution. <i>Nature</i> , 2020 , 587, 408-413	50.4	176
149	Enhanced Formic Acid Oxidation over SnO-decorated Pd Nanocubes. <i>ACS Catalysis</i> , 2020 , 10, 14540-14551	13.1	31
148	Growth Dynamics and Processes Governing the Stability of Electrodeposited Size-Controlled Cubic Cu Catalysts. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 26908-26915	3.8	12
147	Reversible Water-Induced Phase Changes of Cobalt Oxide Nanoparticles. <i>ACS Nano</i> , 2020 , 14, 15450-15457	16.7	5
146	Transition metal-based catalysts for the electrochemical CO reduction: from atoms and molecules to nanostructured materials. <i>Chemical Society Reviews</i> , 2020 , 49, 6884-6946	58.5	128
145	Structure of a Silica Thin Film on Oxidized Cu(111): Conservation of the Honeycomb Lattice and Role of the Interlayer. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 20942-20949	3.8	5
144	Operando NRIXS and XAFS Investigation of Segregation Phenomena in Fe-Cu and Fe-Ag Nanoparticle Catalysts during CO ₂ Electroreduction. <i>Angewandte Chemie</i> , 2020 , 132, 22856-22863	3.6	0
143	Investigating the Behavior of Cu-based Catalysts During Electrochemical CO ₂ Reduction with Liquid Cell Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2020 , 26, 902-903	0.5	
142	On the Activity/Selectivity and Phase Stability of Thermally Grown Copper Oxides during the Electrocatalytic Reduction of CO. <i>ACS Catalysis</i> , 2020 , 10, 11510-11518	13.1	15
141	Operando NRIXS and XAFS Investigation of Segregation Phenomena in Fe-Cu and Fe-Ag Nanoparticle Catalysts during CO Electroreduction. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 22667-22674	16.4	16
140	Operando Insights into Nanoparticle Transformations during Catalysis. <i>ACS Catalysis</i> , 2019 , 9, 10020-10043	14.1	61
139	Bio-inspired design: bulk iron-nickel sulfide allows for efficient solvent-dependent CO reduction. <i>Chemical Science</i> , 2019 , 10, 1075-1081	9.4	43

138	Selective 2-Propanol Oxidation over Unsupported Co ₃ O ₄ Spinel Nanoparticles: Mechanistic Insights into Aerobic Oxidation of Alcohols. <i>ACS Catalysis</i> , 2019 , 9, 5974-5985	13.1	36
137	Shape-Controlled Nanoparticles as Anodic Catalysts in Low-Temperature Fuel Cells. <i>ACS Energy Letters</i> , 2019 , 4, 1484-1495	20.1	58
136	Plasma-Modified Dendritic Cu Catalyst for CO Electroreduction. <i>ACS Catalysis</i> , 2019 , 9, 5496-5502	13.1	67
135	Enhanced Stability and CO/Formate Selectivity of Plasma-Treated SnO ₂ /AgO Catalysts during CO Electroreduction. <i>Journal of the American Chemical Society</i> , 2019 , 141, 5261-5266	16.4	59
134	Rational catalyst and electrolyte design for CO ₂ electroreduction towards multicarbon products. <i>Nature Catalysis</i> , 2019 , 2, 198-210	36.5	493
133	Tuning the Structure of Pt Nanoparticles through Support Interactions: An in Situ Polarized X-ray Absorption Study Coupled with Atomistic Simulations. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 10666-10676	3.8	21
132	Partial Oxidation of Methane to Syngas Over Nickel-Based Catalysts: Influence of Support Type, Addition of Rhodium, and Preparation Method. <i>Frontiers in Chemistry</i> , 2019 , 7, 104	5	40
131	Partikel fflPartikel lElektrochemische Einschlagsexperimente zur Synthese oberflflchenimmobilisierter Goldnanopartikel ffl die Elektrokatalyse. <i>Angewandte Chemie</i> , 2019 , 131, 8305-8309	3.6	1
130	Piece by Piece-Electrochemical Synthesis of Individual Nanoparticles and their Performance in ORR Electrocatalysis. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 8221-8225	16.4	25
129	Role of Boron and Phosphorus in Enhanced Electrocatalytic Oxygen Evolution by Nickel Borides and Nickel Phosphides. <i>ChemElectroChem</i> , 2019 , 6, 235-240	4.3	38
128	Ab Initio Cyclic Voltammetry on Cu(111), Cu(100) and Cu(110) in Acidic, Neutral and Alkaline Solutions. <i>ChemPhysChem</i> , 2019 , 20, 3096-3105	3.2	36
127	Is There a Negative Thermal Expansion in Supported Metal Nanoparticles? An in Situ X-ray Absorption Study Coupled with Neural Network Analysis. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 20594-20604	3.8	11
126	Water Solvation of Charged and Neutral Gold Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2019 , 123, 6521-6528	3.4	10
125	Selective CO ₂ Electroreduction to Ethylene and Multicarbon Alcohols via Electrolyte-Driven Nanostructuring. <i>Angewandte Chemie</i> , 2019 , 131, 17203-17209	3.6	23
124	Selective CO Electroreduction to Ethylene and Multicarbon Alcohols via Electrolyte-Driven Nanostructuring. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 17047-17053	16.4	93
123	Operando Insight into the Correlation between the Structure and Composition of CuZn Nanoparticles and Their Selectivity for the Electrochemical CO Reduction. <i>Journal of the American Chemical Society</i> , 2019 , 141, 19879-19887	16.4	72
122	Surface Segregation in CuNi Nanoparticle Catalysts During CO Hydrogenation: The Role of CO in the Reactant Mixture. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 8421-8428	3.8	23
121	The Role of the Copper Oxidation State in the Electrocatalytic Reduction of CO ₂ into Valuable Hydrocarbons. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 1485-1492	8.3	75

120	Efficient Electrochemical Hydrogen Peroxide Production from Molecular Oxygen on Nitrogen-Doped Mesoporous Carbon Catalysts. <i>ACS Catalysis</i> , 2018 , 8, 2844-2856	13.1	223
119	Dynamic Changes in the Structure, Chemical State and Catalytic Selectivity of Cu Nanocubes during CO Electroreduction: Size and Support Effects. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 6192-6197 ¹⁸⁸	16.4	188
118	Dynamic Changes in the Structure, Chemical State and Catalytic Selectivity of Cu Nanocubes during CO ₂ Electroreduction: Size and Support Effects. <i>Angewandte Chemie</i> , 2018 , 130, 6300-6305	3.6	51
117	The chemical identity, state and structure of catalytically active centers during the electrochemical CO reduction on porous Fe-nitrogen-carbon (Fe-N-C) materials. <i>Chemical Science</i> , 2018 , 9, 5064-5073	9.4	82
116	Segregation Phenomena in Size-Selected Bimetallic CuNi Nanoparticle Catalysts. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 919-926	3.4	15
115	Microtomography-based CFD modeling of a fixed-bed reactor with an open-cell foam monolith and experimental verification by reactor profile measurements. <i>Chemical Engineering Journal</i> , 2018 , 353, 176-188	14.7	20
114	Operando Evolution of the Structure and Oxidation State of Size-Controlled Zn Nanoparticles during CO Electroreduction. <i>Journal of the American Chemical Society</i> , 2018 , 140, 9383-9386	16.4	94
113	Influence of interfaces on the phonon density of states of nanoscale metallic multilayers: Phonon confinement and localization. <i>Physical Review B</i> , 2018 , 98,	3.3	9
112	CO ₂ electroreduction on copper-cobalt nanoparticles: Size and composition effect. <i>Nano Energy</i> , 2018 , 53, 27-36	17.1	64
111	Prism-Shaped Cu Nanocatalysts for Electrochemical CO ₂ Reduction to Ethylene. <i>ACS Catalysis</i> , 2018 , 8, 531-535	13.1	125
110	Influence of the Fe:Ni Ratio and Reaction Temperature on the Efficiency of (Fe _x Ni _{1-x}) ₉ S ₈ Electrocatalysts Applied in the Hydrogen Evolution Reaction. <i>ACS Catalysis</i> , 2018 , 8, 987-996	13.1	90
109	Highly active single-layer MoS catalysts synthesized by swift heavy ion irradiation. <i>Nanoscale</i> , 2018 , 10, 22908-22916	7.7	26
108	Ir-Ni Bimetallic OER Catalysts Prepared by Controlled Ni Electrodeposition on Irpoly and Ir(111). <i>Surfaces</i> , 2018 , 1, 165-186	2.9	7
107	Structure- and Electrolyte-Sensitivity in CO Electroreduction. <i>Accounts of Chemical Research</i> , 2018 , 51, 2906-2917	24.3	154
106	Probing the chemical state of tin oxide NP catalysts during CO ₂ electroreduction: A complementary operando approach. <i>Nano Energy</i> , 2018 , 53, 828-840	17.1	48
105	Activity and Selectivity Control in CO ₂ Electroreduction to Multicarbon Products over CuOx Catalysts via Electrolyte Design. <i>ACS Catalysis</i> , 2018 , 8, 10012-10020	13.1	105
104	Reactivity Determinants in Electrodeposited Cu Foams for Electrochemical CO Reduction. <i>ChemSusChem</i> , 2018 , 11, 3449-3459	8.3	53
103	Three-way catalysis with supported gold catalysts: Poisoning effects of hydrocarbons. <i>Applied Catalysis B: Environmental</i> , 2018 , 237, 1021-1032	21.8	7

102	New insights into working nanostructured electrocatalysts through operando spectroscopy and microscopy. <i>Current Opinion in Electrochemistry</i> , 2017 , 1, 95-103	7.2	47
101	NH3 Post-Treatment Induces High Activity of Co-Based Electrocatalysts Supported on Carbon Nanotubes for the Oxygen Evolution Reaction. <i>ChemElectroChem</i> , 2017 , 4, 2091-2098	4.3	6
100	Ultrathin High Surface Area Nickel Boride (Ni ₃ B) Nanosheets as Highly Efficient Electrocatalyst for Oxygen Evolution. <i>Advanced Energy Materials</i> , 2017 , 7, 1700381	21.8	245
99	Plasma-Activated Copper Nanocube Catalysts for Efficient Carbon Dioxide Electroreduction to Hydrocarbons and Alcohols. <i>ACS Nano</i> , 2017 , 11, 4825-4831	16.7	264
98	Improved CO ₂ Electroreduction Performance on Plasma-Activated Cu Catalysts via Electrolyte Design: Halide Effect. <i>ACS Catalysis</i> , 2017 , 7, 5112-5120	13.1	142
97	Understanding activity and selectivity of metal-nitrogen-doped carbon catalysts for electrochemical reduction of CO. <i>Nature Communications</i> , 2017 , 8, 944	17.4	604
96	Operando Phonon Studies of the Protonation Mechanism in Highly Active Hydrogen Evolution Reaction Pentlandite Catalysts. <i>Journal of the American Chemical Society</i> , 2017 , 139, 14360-14363	16.4	42
95	Enhanced Carbon Dioxide Electroreduction to Carbon Monoxide over Defect-Rich Plasma-Activated Silver Catalysts. <i>Angewandte Chemie</i> , 2017 , 129, 11552-11556	3.6	42
94	Enhanced Carbon Dioxide Electroreduction to Carbon Monoxide over Defect-Rich Plasma-Activated Silver Catalysts. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 11394-11398	16.4	136
93	Synergistic Effect of Cobalt and Iron in Layered Double Hydroxide Catalysts for the Oxygen Evolution Reaction. <i>ChemSusChem</i> , 2017 , 10, 156-165	8.3	91
92	Size-dependent reactivity of gold-copper bimetallic nanoparticles during CO ₂ electroreduction. <i>Catalysis Today</i> , 2017 , 288, 30-36	5.3	56
91	Silver-doped zinc oxide single nanowire multifunctional nanosensor with a significant enhancement in response. <i>Sensors and Actuators B: Chemical</i> , 2016 , 223, 893-903	8.5	145
90	Tailoring the Catalytic Properties of Metal Nanoparticles via Support Interactions. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 3519-33	6.4	161
89	Impact of lattice dynamics on the phase stability of metamagnetic FeRh: Bulk and thin films. <i>Physical Review B</i> , 2016 , 94,	3.3	32
88	Low Overpotential Water Splitting Using Cobalt-Cobalt Phosphide Nanoparticles Supported on Nickel Foam. <i>ACS Energy Letters</i> , 2016 , 1, 1192-1198	20.1	111
87	Nanostructured electrocatalysts with tunable activity and selectivity. <i>Nature Reviews Materials</i> , 2016 , 1,	73.3	523
86	Highly selective plasma-activated copper catalysts for carbon dioxide reduction to ethylene. <i>Nature Communications</i> , 2016 , 7, 12123	17.4	644
85	Tuning Catalytic Selectivity at the Mesoscale via Interparticle Interactions. <i>ACS Catalysis</i> , 2016 , 6, 1075-1080	19.0	98

84	Probing the Dynamic Structure and Chemical State of Au Nanocatalysts during the Electrochemical Oxidation of 2-Propanol. <i>ACS Catalysis</i> , 2016 , 6, 3396-3403	13.1	15
83	Size-dependent adhesion energy of shape-selected Pd and Pt nanoparticles. <i>Nanoscale</i> , 2016 , 8, 11635-41.7	13	
82	Element-resolved thermodynamics of magnetocaloric LaFe(13-x)Si(x). <i>Physical Review Letters</i> , 2015 , 114, 057202	7.4	59
81	Nanocatalysis: size- and shape-dependent chemisorption and catalytic reactivity. <i>Surface Science Reports</i> , 2015 , 70, 135-187	12.9	237
80	Carbon Monoxide-Induced Stability and Atomic Segregation Phenomena in Shape-Selected Octahedral PtNi Nanoparticles. <i>ACS Nano</i> , 2015 , 9, 10686-94	16.7	39
79	Shape-Selection of Thermodynamically Stabilized Colloidal Pd and Pt Nanoparticles Controlled via Support Effects. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 29178-29185	3.8	7
78	Shape-Dependent Catalytic Oxidation of 2-Butanol over Pt Nanoparticles Supported on γ -Al ₂ O ₃ . <i>ACS Catalysis</i> , 2014 , 4, 109-115	13.1	33
77	Structural and electronic properties of micellar Au nanoparticles: size and ligand effects. <i>ACS Nano</i> , 2014 , 8, 6671-81	16.7	32
76	Exceptional size-dependent activity enhancement in the electroreduction of CO ₂ over Au nanoparticles. <i>Journal of the American Chemical Society</i> , 2014 , 136, 16473-6	16.4	495
75	An in situ transmission electron microscopy study of sintering and redispersion phenomena over size-selected metal nanoparticles: environmental effects. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 18176-84	3.6	24
74	Hydrogen Evolution from Metal-Surface Hydroxyl Interaction. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 17717-17723	3.8	15
73	Carbon monoxide-assisted size confinement of bimetallic alloy nanoparticles. <i>Journal of the American Chemical Society</i> , 2014 , 136, 4813-6	16.4	85
72	Role and Evolution of Nanoparticle Structure and Chemical State during the Oxidation of NO over Size- and Shape-Controlled Pt/ γ -Al ₂ O ₃ Catalysts under Operando Conditions. <i>ACS Catalysis</i> , 2014 , 4, 1875-1884	13.1	35
71	Particle size effects in the catalytic electroreduction of CO ₂ on Cu nanoparticles. <i>Journal of the American Chemical Society</i> , 2014 , 136, 6978-86	16.4	874
70	Pressure-Dependent Effect of Hydrogen Adsorption on Structural and Electronic Properties of Pt/ γ -Al ₂ O ₃ Nanoparticles. <i>ChemCatChem</i> , 2014 , 6, 348-352	5.2	43
69	Shape-selected bimetallic nanoparticle electrocatalysts: evolution of their atomic-scale structure, chemical composition, and electrochemical reactivity under various chemical environments. <i>Faraday Discussions</i> , 2013 , 162, 91-112	3.6	71
68	Eu-doped ZnO nanowire arrays grown by electrodeposition. <i>Applied Surface Science</i> , 2013 , 282, 782-788	6.7	76
67	Nano-gold diggers: Au-assisted SiO ₂ -decomposition and desorption in supported nanocatalysts. <i>ACS Nano</i> , 2013 , 7, 10327-34	16.7	24

66	Long-range segregation phenomena in shape-selected bimetallic nanoparticles: chemical state effects. <i>ACS Nano</i> , 2013 , 7, 9195-204	16.7	110
65	Synthesis and characterization of Cu-doped ZnO one-dimensional structures for miniaturized sensor applications with faster response. <i>Sensors and Actuators A: Physical</i> , 2013 , 189, 399-408	3.9	185
64	Metal nanoparticle catalysts beginning to shape-up. <i>Accounts of Chemical Research</i> , 2013 , 46, 1682-91	24.3	175
63	Trends in the binding strength of surface species on nanoparticles: how does the adsorption energy scale with the particle size?. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 5175-9	16.4	60
62	Correlating Catalytic Methanol Oxidation with the Structure and Oxidation State of Size-Selected Pt Nanoparticles. <i>ACS Catalysis</i> , 2013 , 3, 1460-1468	13.1	42
61	Towards the Understanding of Sintering Phenomena at the Nanoscale: Geometric and Environmental Effects. <i>Topics in Catalysis</i> , 2013 , 56, 1542-1559	2.3	50
60	Trends in der Bindungsstärke von Oberflächenspezies auf Nanopartikeln: Wie verändert sich die Adsorptionsenergie mit der Partikelgröße?. <i>Angewandte Chemie</i> , 2013 , 125, 5282-5287	3.6	12
59	Highly sensitive and selective hydrogen single-nanowire nanosensor. <i>Sensors and Actuators B: Chemical</i> , 2012 , 173, 772-780	8.5	128
58	Electrochemical Oxidation of Size-Selected Pt Nanoparticles Studied Using in Situ High-Energy-Resolution X-ray Absorption Spectroscopy. <i>ACS Catalysis</i> , 2012 , 2, 2371-2376	13.1	78
57	In situ coarsening study of inverse micelle-prepared Pt nanoparticles supported on γ -Al ₂ O ₃ : pretreatment and environmental effects. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 11457-67	3.6	49
56	Electronic properties and charge transfer phenomena in Pt nanoparticles on γ -Al ₂ O ₃ : size, shape, support, and adsorbate effects. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 11766-79	3.6	74
55	Nano Pinstripes: TiO ₂ Nanostripe Formation by Nanoparticle-Mediated Pinning of Step Edges. <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 608-12	6.4	7
54	Coarsening phenomena of metal nanoparticles and the influence of the support pre-treatment: Pt/TiO ₂ (110). <i>Surface Science</i> , 2012 , 606, 908-918	1.8	55
53	Stability of platinum nanoparticles supported on SiO ₂ /Si(111): a high-pressure X-ray photoelectron spectroscopy study. <i>ACS Nano</i> , 2012 , 6, 10743-9	16.7	53
52	Size-dependent evolution of the atomic vibrational density of states and thermodynamic properties of isolated Fe nanoparticles. <i>Physical Review B</i> , 2012 , 86,	3.3	23
51	Thermodynamic properties of Pt nanoparticles: Size, shape, support, and adsorbate effects. <i>Physical Review B</i> , 2011 , 84,	3.3	44
50	Structure, chemical composition, and reactivity correlations during the in situ oxidation of 2-propanol. <i>Journal of the American Chemical Society</i> , 2011 , 133, 6728-35	16.4	44
49	Comparative study of hydrothermal treatment and thermal annealing effects on the properties of electrodeposited micro-columnar ZnO thin films. <i>Thin Solid Films</i> , 2011 , 519, 7738-7749	2.2	33

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