Richard M Crooks

List of Publications by Year
in descending order

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211 papers	22,596 citations	6254 80 h-index	8630 146 g-index
217 all docs	217 docs citations	217 times ranked	17439 citing authors

#	Article	IF	Citations
1	Dendrimer-Encapsulated Metal Nanoparticles:â€‰ Synthesis, Characterization, and Applications to Catalysis. Accounts of Chemical Research, 2001, 34, 181-190.	15.6	2,004
2	Beyond fossil fuelâ€“driven nitrogen transformations. Science, 2018, 360, .	12.6	1,379
3	Preparation of Cu Nanoclusters within Dendrimer Templates. Journal of the American Chemical Society, 1998, 120, 4877-4878.	13.7	943
4	Synthesis, Characterization, and Applications of Dendrimer-Encapsulated Nanoparticles. Journal of Physical Chemistry B, 2005, 109, 692-704.	2.6	843
5	Homogeneous Hydrogenation Catalysis with Monodisperse, Dendrimer-Encapsulated Pd and Pt Nanoparticles. Angewandte Chemie - International Edition, 1999, 38, 364-366.	13.8	608
6	Bipolar Electrochemistry. Angewandte Chemie - International Edition, 2013, 52, 10438-10456.	13.8	588
7	Three-Dimensional Paper Microfluidic Devices Assembled Using the Principles of Origami. Journal of the American Chemical Society, 2011, 133, 17564-17566.	13.7	466
8	Size-Selective Hydrogenation of Olefins by Dendrimer-Encapsulated Palladium Nanoparticles. Journal of the American Chemical Society, 2001, 123, 6840-6846.	13.7	352
9	Effect of Pd Nanoparticle Size on the Catalytic Hydrogenation of Allyl Alcohol. Journal of the American Chemical Society, 2006, 128, 4510-4511.	13.7	350
10	Preparation and Characterization of 1â^'2 nm Dendrimer-Encapsulated Gold Nanoparticles Having Very Narrow Size Distributions. Chemistry of Materials, 2004, 16, 167-172.	6.7	331
11	Bimetallic Palladiumâ^'Gold Dendrimer-Encapsulated Catalysts. Journal of the American Chemical Society, 2004, 126, 15583-15591.	13.7	328
12	Bimetallic Palladiumâ^'Platinum Dendrimer-Encapsulated Catalysts. Journal of the American Chemical Society, 2003, 125, 3708-3709.	13.7	302
13	Dendrimer-encapsulated nanoparticles: New synthetic and characterization methods and catalytic applications. Chemical Science, 2011, 2, 1632.	7.4	300
14	Bipolar Electrodes: A Useful Tool for Concentration, Separation, and Detection of Analytes in Microelectrochemical Systems. Analytical Chemistry, 2010, 82, 8766-8774.	6.5	295
15	Interactions between Organized, Surface-Confined Monolayers and Vapor-Phase Probe Molecules. 10. Preparation and Properties of Chemically Sensitive Dendrimer Surfaces. Journal of the American Chemical Society, 1996, 118, 3988-3989.	13.7	284
16	Electrochemistry Using Single Carbon Nanotubes. Journal of the American Chemical Society, 1999, 121, 3779-3780.	13.7	282
17	New Organic Materials Suitable for Use in Chemical Sensor Arrays. Accounts of Chemical Research, 1998, 31, 219-227.	15.6	271
18	Preparation and Characterization of Dendrimerâ^'Gold Colloid Nanocomposites. Analytical Chemistry, 1999, 71, 256-258.	6.5	265

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19	Self-Assembled Inverted Micelles Prepared from a Dendrimer Template:Â Phase Transfer of Encapsulated Guests. Journal of the American Chemical Society, 1999, 121, 4910-4911.	13.7	255
20	Dendrimer-Encapsulated Pd Nanoparticles as Fluorous Phase-Soluble Catalysts. Journal of the American Chemical Society, 2000, 122, 1243-1244.	13.7	249
21	Aptamerâ€Based Origami Paper Analytical Device for Electrochemical Detection of Adenosine. Angewandte Chemie - International Edition, 2012, 51, 6925-6928.	13.8	239
22	A Large-Scale, Wireless Electrochemical Bipolar Electrode Microarray. Journal of the American Chemical Society, 2009, 131, 8364-8365.	13.7	213
23	Dendrimer-encapsulated metal nanoparticles and their applications to catalysis. Comptes Rendus Chimie, 2003, 6, 1049-1059.	0.5	209
24	Structural Distortion of Dendrimers on Gold Surfaces:Â A Tapping-Mode AFM Investigation. Journal of the American Chemical Society, 1998, 120, 5323-5324.	13.7	205
25	Intradendrimer Exchange of Metal Nanoparticles. Chemistry of Materials, 1999, 11, 3379-3385.	6.7	204
26	Synthesis, Characterization, and Stability of Dendrimer-Encapsulated Palladium Nanoparticles. Chemistry of Materials, 2003, 15, 3873-3878.	6.7	196
27	Efficient Mixing and Reactions within Microfluidic Channels Using Microbead-Supported Catalysts. Journal of the American Chemical Society, 2002, 124, 13360-13361.	13.7	192
28	Corrosion Passivation of Gold by n-Alkanethiol Self-Assembled Monolayers:â€‰ Effect of Chain Length and End Group. Langmuir, 1998, 14, 3279-3286.	3.5	186
29	Preparation and Characterization of Dendrimer-Encapsulated CdS Semiconductor Quantum Dots. Journal of the American Chemical Society, 2000, 122, 12886-12887.	13.7	181
30	Determination of the Intrinsic Proton Binding Constants for Poly(amidoamine) Dendrimers via Potentiometric pH Titration. Macromolecules, 2003, 36, 5725-5731.	4.8	177
31	Synthesis, Characterization, and Surface Immobilization of Platinum and Palladium Nanoparticles Encapsulated within Amine-Terminated Poly(amidoamine) Dendrimers. Langmuir, 2004, 20, 2915-2920.	3.5	159
32	Hollow-Channel Paper Analytical Devices. Analytical Chemistry, 2013, 85, 7976-7979.	6.5	159
33	Detection of Hepatitis B Virus DNA with a Paper Electrochemical Sensor. Analytical Chemistry, 2015, 87, 9009-9015.	6.5	150
34	Structural Rearrangement of Bimetallic Alloy PdAu Nanoparticles within Dendrimer Templates to Yield Core/Shell Configurations. Chemistry of Materials, 2008, 20, 1019-1028.	6.7	149
35	Paper Electrochemical Device for Detection of DNA and Thrombin by Target-Induced Conformational Switching. Analytical Chemistry, 2014, 86, 6166-6170.	6.5	149
36	Effect of Particle Size on the Kinetics of the Electrocatalytic Oxygen Reduction Reaction Catalyzed by Pt Dendrimer-Encapsulated Nanoparticles. Langmuir, 2007, 23, 11901-11906.	3.5	147

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37	pH-Switchable, Ultrathin Permselective Membranes Prepared from Multilayer Polymer Composites. Journal of the American Chemical Society, 1997, 119, 8720-8721.	13.7	145
38	Design of Pt-Shell Nanoparticles with Alloy Cores for the Oxygen Reduction Reaction. ACS Nano, 2013, 7, 9168-9172.	14.6	141
39	Preparation of Hyperbranched Polymer Films Grafted on Self-Assembled Monolayers. Journal of the American Chemical Society, 1996, 118, 3773-3774.	13.7	140
40	Synthesis and Characterization of Surface-Grafted, Hyperbranched Polymer Films Containing Fluorescent, Hydrophobic, Ion-Binding, Biocompatible, and Electroactive Groups. Langmuir, 1997, 13, 770-778.	3.5	138
41	A Theoretical and Experimental Framework for Understanding Electrogenerated Chemiluminescence (ECL) Emission at Bipolar Electrodes. Analytical Chemistry, 2009, 81, 6218-6225.	6.5	138
42	Synthesis and Characterization of Pt Dendrimer-Encapsulated Nanoparticles: Effect of the Template on Nanoparticle Formation. Chemistry of Materials, 2008, 20, 5218-5228.	6.7	135
43	Electrochemical Synthesis and Electrocatalytic Properties of Au@Pt Dendrimer-Encapsulated Nanoparticles. Journal of the American Chemical Society, 2010, 132, 10988-10989.	13.7	135
44	Three-Dimensional Wax Patterning of Paper Fluidic Devices. Langmuir, 2014, 30, 7030-7036.	3.5	135
45	Electrochemistry in Hollow-Channel Paper Analytical Devices. Journal of the American Chemical Society, 2014, 136, 4616-4623.	13.7	129
46	Extraction of Au Nanoparticles Having Narrow Size Distributions from within Dendrimer Templates. Journal of the American Chemical Society, 2004, 126, 16170-16178.	13.7	128
47	Surface Acoustic Wave Chemical Sensor Arrays:â€‰ New Chemically Sensitive Interfaces Combined with Novel Cluster Analysis To Detect Volatile Organic Compounds and Mixtures. Accounts of Chemical Research, 1998, 31, 289-296.	15.6	127
48	Detection of microRNA by Electrocatalytic Amplification: A General Approach for Single-Particle Biosensing. Journal of the American Chemical Society, 2017, 139, 7657-7664.	13.7	124
49	Oxygen Reduction Reaction on Classically Immiscible Bimetallics: A Case Study of RhAu. Journal of Physical Chemistry C, 2018, 122, 2712-2716.	3.1	123
50	Monolayers of Thiol-Terminated Dendrimers on the Surface of Planar and Colloidal Gold. Langmuir, 1999, 15, 6364-6369.	3.5	115
51	Size Stability and H₂/CO Selectivity for Au Nanoparticles during Electrocatalytic CO₂ Reduction. Journal of the American Chemical Society, 2017, 139, 16161-16167.	13.7	113
52	Bipolar Electrode Focusing: Simultaneous Concentration Enrichment and Separation in a Microfluidic Channel Containing a Bipolar Electrode. Analytical Chemistry, 2009, 81, 8923-8929.	6.5	111
53	Characterization of Poly(amidoamine) Dendrimers and Their Complexes with Cu2+by Matrix-Assisted Laser Desorption Ionization Mass Spectrometry. Macromolecules, 2001, 34, 3567-3573.	4.8	109
54	DNA Detection Using Origami Paper Analytical Devices. Analytical Chemistry, 2013, 85, 9713-9720.	6.5	109

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55	NMR Characterization of Fourth-Generation PAMAM Dendrimers in the Presence and Absence of Palladium Dendrimer-Encapsulated Nanoparticles. Journal of the American Chemical Society, 2009, 131, 341-350.	13.7	104
56	Transient Effects on Microchannel Electrokinetic Filtering with an Ion-Permselective Membrane. Analytical Chemistry, 2008, 80, 1039-1048.	6.5	103
57	Efficient Electrocatalytic Oxidation of Formic Acid Using Au@Pt Dendrimer-Encapsulated Nanoparticles. Journal of the American Chemical Society, 2013, 135, 5521-5524.	13.7	103
58	Electrokinetics in Microfluidic Channels Containing a Floating Electrode. Journal of the American Chemical Society, 2008, 130, 10480-10481.	13.7	100
59	Catalysis in supercritical CO2 using dendrimer-encapsulated palladium nanoparticles. Chemical Communications, 2001, , 2290-2291.	4.1	96
60	Tunability of the Adsorbate Binding on Bimetallic Alloy Nanoparticles for the Optimization of Catalytic Hydrogenation. Journal of the American Chemical Society, 2017, 139, 5538-5546.	13.7	96
61	Preparation of Dendrimer-Encapsulated Metal Nanoparticles Using Organic Solvents. Chemistry of Materials, 2003, 15, 3463-3467.	6.7	95
62	Electrokinetic Trapping and Concentration Enrichment of DNA in a Microfluidic Channel. Journal of the American Chemical Society, 2003, 125, 13026-13027.	13.7	94
63	Principles of Bipolar Electrochemistry. ChemElectroChem, 2016, 3, 357-359.	3.4	94
64	Size-Selective Catalytic Activity of Pd Nanoparticles Encapsulated within End-Group Functionalized Dendrimers. Langmuir, 2005, 21, 10209-10213.	3.5	93
65	Electric field gradient focusing in microchannels with embedded bipolar electrode. Lab on A Chip, 2009, 9, 1903.	6.0	93
66	New Functionalities for Paper-Based Sensors Lead to Simplified User Operation, Lower Limits of Detection, and New Applications. Annual Review of Analytical Chemistry, 2016, 9, 183-202.	5.4	93
67	Scanning Probe Lithography. 3. Nanometer-Scale Electrochemical Patterning of Au and Organic Resists in the Absence of Intentionally Added Solvents or Electrolytes. The Journal of Physical Chemistry, 1996, 100, 11086-11091.	2.9	92
68	Imaging of Defects Contained within nâ€Alkylthiol Monolayers by Combination of Underpotential Deposition and Scanning Tunneling Microscopy: Kinetics of Selfâ€Assembly. Journal of the Electrochemical Society, 1991, 138, L23-L25.	2.9	89
69	Electrochemically Mediated Seawater Desalination. Angewandte Chemie - International Edition, 2013, 52, 8107-8110.	13.8	89
70	Synthesis and Catalytic Evaluation of Dendrimer-Encapsulated Cu Nanoparticles. An Undergraduate Experiment Exploring Catalytic Nanomaterials. Journal of Chemical Education, 2009, 86, 368.	2.3	86
71	Structural Analysis of PdAu Dendrimer-Encapsulated Bimetallic Nanoparticles. Langmuir, 2010, 26, 1137-1146.	3.5	86
72	Interactions between Organized, Surface-Confined Monolayers and Vapor-Phase Probe Molecules. 12. Two New Methods for Surface-Immobilization and Functionalization of Chemically Sensitive Dendrimer Surfaces. Langmuir, 1997, 13, 5608-5612.	3.5	85

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73	Interactions between Organized, Surface-Confined Monolayers and Vapor-Phase Probe Molecules. 9. Structure/Reactivity Relationship between Three Surface-Confined Isomers of Mercaptobenzoic Acid and Vapor-Phase Decylamine. Langmuir, 1996, 12, 1989-1996.	3.5	84
74	Spectroscopic, Voltammetric, and Electrochemical Scanning Tunneling Microscopic Study of Underpotentially Deposited Cu Corrosion and Passivation with Self-Assembled Organomercaptan Monolayers. Langmuir, 1998, 14, 640-647.	3.5	84
75	Photophysical Properties of Pyrene-Functionalized Poly(propylene imine) Dendrimers. Macromolecules, 2000, 33, 9034-9039.	4.8	84
76	Synthesis, Characterization, and Surface Immobilization of Metal Nanoparticles Encapsulated within Bifunctionalized Dendrimers. Langmuir, 2003, 19, 10420-10425.	3.5	84
77	Bipolar Electrode Focusing: Faradaic Ion Concentration Polarization. Analytical Chemistry, 2011, 83, 2351-2358.	6.5	83
78	Evaluating Electrocatalysts for the Hydrogen Evolution Reaction Using Bipolar Electrode Arrays: Bi- and Trimetallic Combinations of Co, Fe, Ni, Mo, and W. ACS Catalysis, 2014, 4, 1332-1339.	11.2	83
79	Simple, Sensitive, and Quantitative Electrochemical Detection Method for Paper Analytical Devices. Analytical Chemistry, 2014, 86, 6501-6507.	6.5	82
80	Bipolar Electrode Focusing: The Effect of Current and Electric Field on Concentration Enrichment. Analytical Chemistry, 2009, 81, 10149-10155.	6.5	81
81	A Simple Lithographic Approach for Preparing Patterned, Micron-Scale Corrals for Controlling Cell Growth. Angewandte Chemie - International Edition, 1999, 38, 1592-1595.	13.8	79
82	Patterning Bacteria within Hyperbranched Polymer Film Templates. Langmuir, 2002, 18, 9914-9917.	3.5	79
83	Scanning Probe Lithography. 4. Characterization of Scanning Tunneling Microscope-Induced Patterns in n-Alkanethiol Self-Assembled Monolayers. Langmuir, 1997, 13, 2323-2332.	3.5	78
84	In-SituElectrochemical Scanning Tunneling Microscopy (ECSTM) Study of Cyanide-Induced Corrosion of Naked and Hexadecyl Mercaptan-Passivated Au(111). Langmuir, 1997, 13, 122-126.	3.5	78
85	A Theoretical and Experimental Approach for Correlating Nanoparticle Structure and Electrocatalytic Activity. Accounts of Chemical Research, 2015, 48, 1351-1357.	15.6	78
86	Wire, Mesh, and Fiber Electrodes for Paper-Based Electroanalytical Devices. Analytical Chemistry, 2014, 86, 3659-3666.	6.5	76
87	An Experimental and Theoretical Investigation of the Inversion of Pd@Pt Core@Shell Dendrimer-Encapsulated Nanoparticles. ACS Nano, 2013, 7, 9345-9353.	14.6	75
88	Well-Defined Nanoparticle Electrocatalysts for the Refinement of Theory. Chemical Reviews, 2020, 120, 814-850.	47.7	75
89	Titania-Supported Au and Pd Composites Synthesized from Dendrimer-Encapsulated Metal Nanoparticle Precursors. Chemistry of Materials, 2004, 16, 5682-5688.	6.7	74
90	Interactions between Organized, Surface-Confined Monolayers and Vapor-Phase Probe Molecules. 11. Synthesis, Characterization, and Chemical Sensitivity of Self-Assembled Polydiacetylene/Calix[n]arene Bilayers. Journal of the American Chemical Society, 1996, 118, 11912-11917.	13.7	73

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91	Dendrimer-Mediated Immobilization of Catalytic Nanoparticles on Flat, Solid Supports. Langmuir, 2002, 18, 8231-8236.	3.5	72
92	Low-Voltage Origami-Paper-Based Electrophoretic Device for Rapid Protein Separation. Analytical Chemistry, 2014, 86, 12390-12397.	6.5	72
93	Periodicity and Atomic Ordering in Nanosized Particles of Crystals. Journal of Physical Chemistry C, 2008, 112, 8907-8911.	3.1	70
94	Independent Geometrical and Electrochemical Characterization of Arrays of Nanometer-Scale Electrodes. Journal of Physical Chemistry B, 1998, 102, 10041-10046.	2.6	65
95	Bipolar electrode focusing: tuning the electric field gradient. Lab on A Chip, 2011, 11, 518-527.	6.0	65
96	Dendrimer-Mediated Adhesion between Vapor-Deposited Au and Glass or Si Wafers. Analytical Chemistry, 1999, 71, 4403-4406.	6.5	64
97	Electrochemical Rectification Using Mixed Monolayers of Redox-Active Ferrocenyl Dendrimers andn-Alkanethiols. Langmuir, 2002, 18, 6981-6987.	3.5	64
98	A theoretical and experimental examination of systematic ligand-induced disorder in Au dendrimer-encapsulated nanoparticles. Chemical Science, 2013, 4, 2912.	7.4	63
99	Inhibition of Electrochemical Reactions at Gold Surfaces by Grafted, Highly Fluorinated, Hyperbranched Polymer Films. Langmuir, 1997, 13, 1388-1391.	3.5	62
100	Au@Pt dendrimer encapsulated nanoparticles as model electrocatalysts for comparison of experiment and theory. Chemical Science, 2012, 3, 1033.	7.4	56
101	Paper-Based Sensor for Electrochemical Detection of Silver Nanoparticle Labels by Galvanic Exchange. ACS Sensors, 2016, 1, 40-47.	7.8	55
102	Chemically Grafted Polymeric Filters for Chemical Sensors:Â Hyperbranched Poly(acrylic acid) Films Incorporating Î²-Cyclodextrin Receptors and Amine-Functionalized Filter Layers. Langmuir, 1999, 15, 885-890.	3.5	54
103	Low-voltage paper isotachophoresis device for DNA focusing. Lab on A Chip, 2015, 15, 4090-4098.	6.0	54
104	Nanometer-Scale Patterning of Metals by Electrodeposition from an STM Tip in Air. Journal of the American Chemical Society, 1998, 120, 9700-9701.	13.7	53
105	Electrochemical detection of individual DNA hybridization events. Lab on A Chip, 2013, 13, 349-354.	6.0	53
106	Addressing Colloidal Stability for Unambiguous Electroanalysis of Single Nanoparticle Impacts. Journal of Physical Chemistry Letters, 2016, 7, 2512-2517.	4.6	53
107	Preparation of polycyclodextrin hollow spheres by templating gold nanoparticles. Chemical Communications, 2001, , 359-360.	4.1	50
108	Separation of Dendrimer-Encapsulated Au and Ag Nanoparticles by Selective Extraction. Chemistry of Materials, 2004, 16, 4202-4204.	6.7	50

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109	Characterization of Pt@Cu Core@Shell Dendrimer-Encapsulated Nanoparticles Synthesized by Cu Underpotential Deposition. Langmuir, 2011, 27, 4227-4235.	3.5	50
110	Synthesis of Hyperbranched, Hydrophilic Fluorinated Surface Grafts. Langmuir, 1996, 12, 5519-5521.	3.5	49
111	Effect of mass transfer on the oxygen reduction reaction catalyzed by platinum dendrimer encapsulated nanoparticles. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11493-11497.	7.1	47
112	Increasing the Collision Rate of Particle Impact Electroanalysis with Magnetically Guided Pt-Decorated Iron Oxide Nanoparticles. ACS Nano, 2015, 9, 7583-7595.	14.6	47
113	Time-Dependent Phase Segregation of Dendrimer/n-Alkylthiol Mixed-Monolayers on Au(111):Â An Atomic Force Microscopy Study. Langmuir, 1999, 15, 7632-7638.	3.5	46
114	Electrochemical and Spectroscopic Characterization of Viologen-Functionalized Poly(Amidoamine) Dendrimers. Journal of Physical Chemistry B, 2001, 105, 8885-8894.	2.6	46
115	Paper diagnostic device for quantitative electrochemical detection of ricin at picomolar levels. Lab on A Chip, 2015, 15, 3707-3715.	6.0	46
116	In Situ Probing of the Active Site Geometry of Ultrathin Nanowires for the Oxygen Reduction Reaction. Journal of the American Chemical Society, 2015, 137, 12597-12609.	13.7	46
117	Two New Approaches for Patterning Polymer Films Using Templates Prepared by Microcontact Printing. Macromolecules, 2001, 34, 1230-1236.	4.8	45
118	Dual-channel bipolar electrode focusing: simultaneous separation and enrichment of both anions and cations. Lab on A Chip, 2012, 12, 4107.	6.0	45
119	Site-Selective Cu Deposition on Pt Dendrimer-Encapsulated Nanoparticles: Correlation of Theory and Experiment. Journal of the American Chemical Society, 2012, 134, 4153-4162.	13.7	44
120	Single Nanoparticle Collisions at Microfluidic Microband Electrodes: The Effect of Electrode Material and Mass Transfer. Langmuir, 2014, 30, 13462-13469.	3.5	44
121	Aqueous Solvation and Functionalization of Weak-Acid Polyelectrolyte Thin Films. Langmuir, 1998, 14, 4232-4237.	3.5	43
122	Magnetic properties of dendrimer-encapsulated iron nanoparticles containing an average of 55 and 147 atoms. New Journal of Chemistry, 2007, 31, 1349.	2.8	43
123	Electrocatalytic Amplification of Nanoparticle Collisions at Electrodes Modified with Polyelectrolyte Multilayer Films. Langmuir, 2015, 31, 876-885.	3.5	42
124	Electrocatalytic Study of the Oxygen Reduction Reaction at Gold Nanoparticles in the Absence and Presence of Interactions with SnO_x Supports. Journal of the American Chemical Society, 2018, 140, 13775-13785.	13.7	42
125	Electrocatalytic Amplification of Single Nanoparticle Collisions Using DNA-Modified Surfaces. Langmuir, 2015, 31, 11724-11733.	3.5	41
126	Dual-electrode microfluidic cell for characterizing electrocatalysts. Lab on A Chip, 2012, 12, 986.	6.0	40

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127	Efficient CO Oxidation Using Dendrimer-Encapsulated Pt Nanoparticles Activated with <2% Cu Surface Atoms. ACS Nano, 2016, 10, 8760-8769.	14.6	39
128	Synthesis, characterization, and electrocatalysis using Pt and Pd dendrimer-encapsulated nanoparticles prepared by galvanic exchange. New Journal of Chemistry, 2011, 35, 2054.	2.8	37
129	Enrichment of Cations via Bipolar Electrode Focusing. Analytical Chemistry, 2012, 84, 7393-7399.	6.5	37
130	Electrochemical Desalination for a Sustainable Water Future. ChemElectroChem, 2014, 1, 850-857.	3.4	37
131	Interactions between Dendrimers and Charged Probe Molecules. 1. Theoretical Methods for Simulating Proton and Metal Ion Binding to Symmetric Polydentate Ligands. Journal of Physical Chemistry B, 2002, 106, 5864-5872.	2.6	35
132	Bipolar electrode depletion: membraneless filtration of charged species using an electrogenerated electric field gradient. Analyst, The, 2011, 136, 4134.	3.5	35
133	Correlating Structure and Function of Metal Nanoparticles for Catalysis. Surface Science, 2015, 640, 65-72.	1.9	35
134	Electrochemical Detection of NT-proBNP Using a Metalloimmunoassay on a Paper Electrode Platform. ACS Sensors, 2020, 5, 853-860.	7.8	35
135	Micrometer-Scale Patterning of Multiple Dyes on Hyperbranched Polymer Thin Films Using Photoacid-Based Lithography. Langmuir, 1999, 15, 7418-7421.	3.5	34
136	Experimental and Theoretical Structural Investigation of AuPt Nanoparticles Synthesized Using a Direct Electrochemical Method. Journal of the American Chemical Society, 2018, 140, 6249-6259.	13.7	33
137	Electrocatalytic amplification of DNA-modified nanoparticle collisions via enzymatic digestion. Chemical Science, 2016, 7, 6450-6457.	7.4	32
138	Fabrication and Characterization of Single Pores for Modeling Mass Transport across Porous Membranes. Langmuir, 1999, 15, 738-741.	3.5	31
139	Label-Free Electrochemical Monitoring of Concentration Enrichment during Bipolar Electrode Focusing. Analytical Chemistry, 2011, 83, 6746-6753.	6.5	31
140	Direct electrochemical detection of individual collisions between magnetic microbead/silver nanoparticle conjugates and a magnetized ultramicroelectrode. Chemical Science, 2015, 6, 6665-6671.	7.4	31
141	Faradaic Ion Concentration Polarization on a Paper Fluidic Platform. Analytical Chemistry, 2017, 89, 4294-4300.	6.5	31
142	A Compelling Case for Bipolar Electrochemistry. ChemElectroChem, 2016, 3, 351-352.	3.4	30
143	Focusing, sorting, and separating microplastics by serial faradaic ion concentration polarization. Chemical Science, 2020, 11, 5547-5558.	7.4	30
144	Electroactive Composite Dendrimer Films Containing Thiophene-Terminated Poly(amidoamine) Dendrimers Cross-Linked by Poly(3-methylthiophene). Chemistry of Materials, 2002, 14, 3995-4001.	6.7	29

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145	Concluding remarks: single entity electrochemistry one step at a time. Faraday Discussions, 2016, 193, 533-547.	3.2	28
146	In situ Xâ€ray Absorption Analysis of â^¼1.8 nm Dendrimerâ€Encapsulated Pt Nanoparticles during Electrochemical CO Oxidation. ChemPhysChem, 2010, 11, 2942-2950.	2.1	27
147	Pressure-Driven Bipolar Electrochemistry. Journal of the American Chemical Society, 2011, 133, 4687-4689.	13.7	27
148	Hybrid paper and 3D-printed microfluidic device for electrochemical detection of Ag nanoparticle labels. Lab on A Chip, 2020, 20, 1648-1657.	6.0	27
149	Covalent Grafting of a Patterned, Hyperbranched Polymer onto a Plastic Substrate Using Microcontact Printing. Journal of the American Chemical Society, 1999, 121, 8395-8396.	13.7	26
150	Synthesis and Characterization of NiSn Dendrimer-Encapsulated Nanoparticles. Langmuir, 2010, 26, 12994-12999.	3.5	26
151	Electrochemically-gated delivery of analyte bands in microfluidic devices using bipolar electrodes. Lab on A Chip, 2013, 13, 2292.	6.0	26
152	A combined theoretical and experimental EXAFS study of the structure and dynamics of Au₁₄₇ nanoparticles. Catalysis Science and Technology, 2016, 6, 6879-6885.	4.1	26
153	Quantitative electrochemical metalloimmunoassay for TFF3 in urine using a paper analytical device. Analyst, The, 2016, 141, 1734-1744.	3.5	26
154	Orientation-Controlled Bioconjugation of Antibodies to Silver Nanoparticles. Bioconjugate Chemistry, 2019, 30, 3078-3086.	3.6	26
155	Multistep Galvanic Exchange Synthesis Yielding Fully Reduced Pt Dendrimer-Encapsulated Nanoparticles. Langmuir, 2014, 30, 15009-15015.	3.5	25
156	Electron Transfer Facilitated by Dendrimer-Encapsulated Pt Nanoparticles Across Ultrathin, Insulating Oxide Films. Journal of the American Chemical Society, 2016, 138, 6829-6837.	13.7	24
157	Highly reproducible chronoamperometric analysis in microdroplets. Lab on A Chip, 2013, 13, 1364.	6.0	21
158	Conjugation of an Î±-Helical Peptide to the Surface of Gold Nanoparticles. Langmuir, 2019, 35, 3363-3371.	3.5	19
159	Scanning probe surface modification. Advanced Materials, 1993, 5, 935-938.	21.0	18
160	Unusual Activity Trend for CO Oxidation on Pd_xAu_{140â€“x}@Pt Core@Shell Nanoparticle Electrocatalysts. Journal of Physical Chemistry Letters, 2015, 6, 2562-2568.	4.6	18
161	Effect of pH, Fluorination, and Number of Layers on the Inhibition of Electrochemical Reactions by Grafted, Hyperbranched Poly(acrylic acid) Films. Israel Journal of Chemistry, 1997, 37, 277-286.	2.3	17
162	In Situ Structural Characterization of Platinum Dendrimer-Encapsulated Oxygen Reduction Electrocatalysts. Langmuir, 2012, 28, 1596-1603.	3.5	17

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