Richard D Tilley

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8184944/publications.pdf

Version: 2024-02-01

213 papers	9,932 citations	34076 52 h-index	43868 91 g-index
224 all docs	224 docs citations	224 times ranked	13092 citing authors

#	Article	IF	Citations
1	Water-Soluble Photoluminescent Silicon Quantum Dots. Angewandte Chemie - International Edition, 2005, 44, 4550-4554.	7.2	483
2	Shape control of platinum and palladium nanoparticles for catalysis. Nanoscale, 2010, 2, 2045.	2.8	305
3	Chemical Insight into the Origin of Red and Blue Photoluminescence Arising from Freestanding Silicon Nanocrystals. ACS Nano, 2013, 7, 2676-2685.	7.3	267
4	Nucleic acid hybridization on an electrically reconfigurable network of gold-coated magnetic nanoparticles enables microRNA detection in blood. Nature Nanotechnology, 2018, 13, 1066-1071.	15.6	244
5	Advances in the Application of Magnetic Nanoparticles for Sensing. Advanced Materials, 2019, 31, e1904385.	11.1	234
6	Chemical Reactions on Surface Molecules Attached to Silicon Quantum Dots. Journal of the American Chemical Society, 2010, 132, 248-253.	6.6	226
7	Preparation, Self-Assembly, and Mechanistic Study of Highly Monodispersed Nanocubes. Journal of the American Chemical Society, 2007, 129, 3287-3291.	6.6	223
8	Challenges and Solutions in Developing Ultrasensitive Biosensors. Journal of the American Chemical Society, 2019, 141, 1162-1170.	6.6	200
9	Ultrafast Growth of Highly Branched Palladium Nanostructures for Catalysis. ACS Nano, 2010, 4, 396-402.	7.3	194
10	Micro-emulsion synthesis of monodisperse surface stabilized silicon nanocrystals. Chemical Communications, 2005, , 1833.	2.2	191
11	Gold coated magnetic nanoparticles: from preparation to surface modification for analytical and biomedical applications. Chemical Communications, 2016, 52, 7528-7540.	2.2	188
12	Solution Synthesis, Optical Properties, and Bioimaging Applications of Silicon Nanocrystals. Accounts of Chemical Research, 2014, 47, 3045-3051.	7.6	187
13	Flexible and efficient perovskite quantum dot solar cells via hybrid interfacial architecture. Nature Communications, 2021, 12, 466.	5.8	176
14	How Nanoparticles Coalesce: An in Situ Study of Au Nanoparticle Aggregation and Grain Growth. Chemistry of Materials, 2011, 23, 3312-3317.	3.2	174
15	In Situ and Ex Situ Studies of Platinum Nanocrystals: Growth and Evolution in Solution. Journal of the American Chemical Society, 2009, 131, 14590-14595.	6.6	157
16	Simple Synthesis and Functionalization of Iron Nanoparticles for Magnetic Resonance Imaging. Angewandte Chemie - International Edition, 2011, 50, 4206-4209.	7.2	148
17	Synthesis of SnS Quantum Dots. Journal of the American Chemical Society, 2009, 131, 15990-15991.	6.6	143
18	The Microemulsion Synthesis of Hydrophobic and Hydrophilic Silicon Nanocrystals. Advanced Materials, 2006, 18, 2053-2056.	11.1	141

#	Article	IF	Citations
19	Synthesis, Alignment, and Magnetic Properties of Monodisperse Nickel Nanocubes. Journal of the American Chemical Society, 2012, 134, 855-858.	6.6	141
20	Cascade Reactions in Nanozymes: Spatially Separated Active Sites inside Ag-Coreâ€“Porous-Cu-Shell Nanoparticles for Multistep Carbon Dioxide Reduction to Higher Organic Molecules. Journal of the American Chemical Society, 2019, 141, 14093-14097.	6.6	139
21	A single-Pt-atom-on-Ru-nanoparticle electrocatalyst for CO-resilient methanol oxidation. Nature Catalysis, 2022, 5, 231-237.	16.1	133
22	Luminescent passive-oxidized silicon quantum dots as biological staining labels and their cytotoxicity effects at high concentration. Nanotechnology, 2008, 19, 415102.	1.3	126
23	Synthesis and Structural Characterization of Branched Palladium Nanostructures. Advanced Materials, 2009, 21, 2288-2293.	11.1	124
24	Real-Time TEM and Kinetic Monte Carlo Studies of the Coalescence of Decahedral Gold Nanoparticles. ACS Nano, 2009, 3, 3809-3813.	7.3	113
25	Sized controlled synthesis, purification, and cell studies with silicon quantum dots. Nanoscale, 2011, 3, 3364.	2.8	113
26	Direct Growth of Highly Strained Pt Islands on Branched Ni Nanoparticles for Improved Hydrogen Evolution Reaction Activity. Journal of the American Chemical Society, 2019, 141, 16202-16207.	6.6	113
27	Shapeâ€Controlled Growth of Platinum Nanoparticles. Small, 2007, 3, 1508-1512.	5.2	110
28	Synthesis of low- and high-index faceted metal (Pt, Pd, Ru, Ir, Rh) nanoparticles for improved activity and stability in electrocatalysis. Nanoscale, 2019, 11, 18995-19011.	2.8	110
29	Goldâ€“Palladium Coreâ€“Shell Nanocrystals with Size and Shape Control Optimized for Catalytic Performance. Angewandte Chemie - International Edition, 2013, 52, 1477-1480.	7.2	104
30	Gold over Branched Palladium Nanostructures for Photothermal Cancer Therapy. ACS Nano, 2015, 9, 12283-12291.	7.3	102
31	Surface Morphology Dependent Photoluminescence from Colloidal Silicon Nanocrystals. Journal of Physical Chemistry B, 2005, 109, 19064-19067.	1.2	101
32	Synthesis of CdSeS Nanocrystals in Coordinating and Noncoordinating Solvents:â€‰ Solvent's Role in Evolution of the Optical and Structural Properties. Chemistry of Materials, 2007, 19, 5185-5193.	3.2	100
33	Size Controlled Synthesis of Germanium Nanocrystals by Hydride Reducing Agents and Their Biological Applications. Chemistry of Materials, 2010, 22, 482-486.	3.2	98
34	The impact of nanoparticle shape on cellular internalisation and transport: what do the different analysis methods tell us?. Materials Horizons, 2019, 6, 1538-1547.	6.4	97
35	How to control the shape of metal nanostructures in organic solution phase synthesis for plasmonics and catalysis. Nano Today, 2013, 8, 198-215.	6.2	94
36	Synthesis and Self-Assembly of Triangular and Hexagonal CdS Nanocrystals. Advanced Materials, 2005, 17, 2997-3001.	11.1	91

#	Article	IF	Citations
37	Photochemical upconversion of near-infrared light from below the silicon bandgap. Nature Photonics, 2020, 14, 585-590.	15.6	88
38	Threeâ€Ðimensional Branched and Faceted Goldâ€“Ruthenium Nanoparticles: Using Nanostructure to Improve Stability in Oxygen Evolution Electrocatalysis. Angewandte Chemie - International Edition, 2018, 57, 10241-10245.	7.2	83
39	Faceted Branched Nickel Nanoparticles with Tunable Branch Length for Highâ€Activity Electrocatalytic Oxidation of Biomass. Angewandte Chemie - International Edition, 2020, 59, 15487-15491.	7.2	83
40	Cubic-Core Hexagonal-Branch Mechanism To Synthesize Bimetallic Branched and Faceted Pdâ€“Ru Nanoparticles for Oxygen Evolution Reaction Electrocatalysis. Journal of the American Chemical Society, 2018, 140, 12760-12764.	6.6	82
41	Advantages of eutectic alloys for creating catalysts in the realm of nanotechnology-enabled metallurgy. Nature Communications, 2019, 10, 4645.	5.8	76
42	The Influence of Nanoconfinement on Electrocatalysis. Angewandte Chemie - International Edition, 2022, 61, .	7.2	74
43	Can Polymorphism be Used to form Branched Metal Nanostructures?. Advanced Materials, 2013, 25, 1552-1556.	11.1	72
44	Electrocatalytic Nanoparticles That Mimic the Three-Dimensional Geometric Architecture of Enzymes: Nanozymes. Journal of the American Chemical Society, 2018, 140, 13449-13455.	6.6	72
45	Tungsten Oxide/Carbide Surface Heterojunction Catalyst with High Hydrogen Evolution Activity. ACS Energy Letters, 2020, 5, 3560-3568.	8.8	70
46	Effect of annealing temperature on the structural, photoluminescence and magnetic properties of solâ€“gel derived Magnetoplumbite-type (M-type) hexagonal strontium ferrite. Journal of Magnetism and Magnetic Materials, 2011, 323, 2318-2322.	1.0	69
47	Effect of Surfactant Concentration and Aggregation on the Growth Kinetics of Nickel Nanoparticles. Journal of Physical Chemistry C, 2013, 117, 16709-16718.	1.5	68
48	Shape Control from Thermodynamic Growth Conditions: The Case of hcp Ruthenium Hourglass Nanocrystals. Journal of the American Chemical Society, 2013, 135, 606-609.	6.6	67
49	Size-controlled short nanobells: Growth and formation mechanism. Applied Physics Letters, 2000, 77, 4136-4138.	1.5	58
50	Hot-injection synthesis of iron/iron oxide core/shell nanoparticles for T2 contrast enhancement in magnetic resonance imaging. Chemical Communications, 2011, 47, 9221.	2.2	58
51	Preserving the Exposed Facets of Pt₃Sn Intermetallic Nanocubes During an Order to Disorder Transition Allows the Elucidation of the Effect of the Degree of Alloy Ordering on Electrocatalysis. Journal of the American Chemical Society, 2020, 142, 3231-3239.	6.6	57
52	Microwave-assisted synthesis of black phosphorus quantum dots: efficient electrocatalyst for oxygen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 12974-12978.	5.2	56
53	Rod-shaped mesoporous silica nanoparticles for nanomedicine: recent progress and perspectives. Expert Opinion on Drug Delivery, 2018, 15, 881-892.	2.4	55
54	Formation of Branched Ruthenium Nanoparticles for Improved Electrocatalysis of Oxygen Evolution Reaction. Small, 2019, 15, e1804577.	5.2	54

#	Article	IF	Citations
55	Rapid and ultrasensitive electrochemical detection of circulating tumor DNA by hybridization on the network of gold-coated magnetic nanoparticles. Chemical Science, 2021, 12, 5196-5201.	3.7	53
56	Synthesis of water-soluble photoluminescent germanium nanocrystals. Nanotechnology, 2006, 17, 3745-3749.	1.3	51
57	Liquid-Phase Synthesis of Flower-like and Flake-like Titanium Disulfide Nanostructures. Chemistry of Materials, 2009, 21, 1725-1730.	3.2	50
58	Gecko-inspired chitosan adhesive for tissue repair. NPG Asia Materials, 2016, 8, e280-e280.	3.8	50
59	The Synthesis of Nickel Sulfide Nanoparticles on Graphitized Carbon Supports. Journal of Physical Chemistry B, 2002, 106, 10895-10901.	1.2	48
60	Ostwaldâ€™s Rule of Stages and Its Role in CdSe Quantum Dot Crystallization. Journal of the American Chemical Society, 2012, 134, 17046-17052.	6.6	48
61	Selfâ€Assembled Hollow Polyaniline/Au Nanospheres Obtained by a Oneâ€Step Synthesis. Macromolecular Rapid Communications, 2008, 29, 598-603.	2.0	46
62	Synthesis and Comparison of the Magnetic Properties of Iron Sulfide Spinel and Iron Oxide Spinel Nanocrystals. Chemistry of Materials, 2011, 23, 2514-2517.	3.2	45
63	Mimicking filtration and transport of rotavirus and adenovirus in sand media using DNA-labeled, protein-coated silica nanoparticles. Water Research, 2014, 62, 167-179.	5.3	44
64	Simple Ligand Exchange Reactions Enabling Excellent Dispersibility and Stability of Magnetic Nanoparticles in Polar Organic, Aromatic, and Protic Solvents. Langmuir, 2014, 30, 1514-1521.	1.6	43
65	Solution Synthesis, Surface Passivation, Optical Properties, Biomedical Applications, and Cytotoxicity of Silicon and Germanium Nanocrystals. ChemPlusChem, 2017, 82, 60-73.	1.3	43
66	Understanding the Effect of Au in Auâ€“Pd Bimetallic Nanocrystals on the Electrocatalysis of the Methanol Oxidation Reaction. Journal of Physical Chemistry C, 2018, 122, 21718-21723.	1.5	43
67	Carbon supported Auâ€“Pd coreâ€“shell nanoparticles for hydrogen production by alcohol electroreforming. Catalysis Science and Technology, 2016, 6, 6870-6878.	2.1	42
68	Pdâ€“Ru coreâ€“shell nanoparticles with tunable shell thickness for active and stable oxygen evolution performance. Nanoscale, 2018, 10, 15173-15177.	2.8	42
69	Role of the Secondary Metal in Ordered and Disordered Ptâ€“M Intermetallic Nanoparticles: An Example of Pt₃Sn Nanocubes for the Electrocatalytic Methanol Oxidation. ACS Catalysis, 2021, 11, 2235-2243.	5.5	42
70	Is Cu instability during the CO₂ reduction reaction governed by the applied potential or the local CO concentration?. Chemical Science, 2021, 12, 4028-4033.	3.7	42
71	Transition Metal Polysulfide Complexes as Single-Source Precursors for Metal Sulfide Nanocrystals. Journal of Physical Chemistry C, 2010, 114, 3817-3821.	1.5	41
72	A rapid readout for many single plasmonic nanoparticles using dark-field microscopy and digital color analysis. Biosensors and Bioelectronics, 2018, 117, 530-536.	5.3	41

#	Article	IF	Citations
73	The importance of nanoscale confinement to electrocatalytic performance. Chemical Science, 2020, 11, 1233-1240.	3.7	39
74	Synthesis and Stability of Highly Crystalline and Stable Iron/Iron Oxide Core/Shell Nanoparticles for Biomedical Applications. ChemPlusChem, 2012, 77, 135-140.	1.3	37
75	Antibacterial Effect of Au Implantation in Ductile Nanocomposite Multilayer (TiAlSiY)N/CrN Coatings. ACS Applied Materials & Interfaces, 2019, 11, 48540-48550.	4.0	36
76	Quantum Dot Passivation of Halide Perovskite Films with Reduced Defects, Suppressed Phase Segregation, and Enhanced Stability. Advanced Science, 2022, 9, e2102258.	5.6	35
77	Size and shape evolution of upconverting nanoparticles using microwave assisted synthesis. CrystEngComm, 2010, 12, 1993.	1.3	34
78	Nanoscale architecture of (CrN/ZrN)/(Cr/Zr) nanocomposite coatings: Microstructure, composition, mechanical properties and first-principles calculations. Journal of Alloys and Compounds, 2020, 831, 154808.	2.8	34
79	Preparation of Large Scale Monolayers of Gold Nanoparticles on Modified Silicon Substrates Using a Controlled Pulling Method. Langmuir, 2003, 19, 5115-5120.	1.6	33
80	Linking Phase Segregation and Photovoltaic Performance of Mixed-Halide Perovskite Films through Grain Size Engineering. ACS Energy Letters, 0, , 1649-1658.	8.8	33
81	How Nanoparticles Transform Single Molecule Measurements into Quantitative Sensors. Advanced Materials, 2020, 32, e1904339.	11.1	30
82	Controlling PbS nanocrystal aggregation in conducting polymers. Nanotechnology, 2005, 16, 2381-2384.	1.3	28
83	Solution Synthesis of Monodisperse Indium Nanoparticles and Highly Faceted Indium Polyhedra. Crystal Growth and Design, 2010, 10, 3854-3858.	1.4	28
84	Introducing Stacking Faults into Three-Dimensional Branched Nickel Nanoparticles for Improved Catalytic Activity. Journal of the American Chemical Society, 2022, 144, 11094-11098.	6.6	27
85	Nanoscale upconversion for oxygen sensing. Materials Science and Engineering C, 2017, 70, 76-84.	3.8	26
86	Nanoparticles as contrast agents for the diagnosis of Alzheimerâ€™s disease: a systematic review. Nanomedicine, 2020, 15, 725-743.	1.7	26
87	Solution Synthesis and Optical Properties of Transition-Metal-Doped Silicon Nanocrystals. Journal of Physical Chemistry Letters, 2015, 6, 1573-1576.	2.1	25
88	Electron microscopy and its role in advanced lithium-ion battery research. Sustainable Energy and Fuels, 2019, 3, 1623-1646.	2.5	25
89	Selectively detecting attomolar concentrations of proteins using gold lined nanopores in a nanopore blockade sensor. Chemical Science, 2020, 11, 12570-12579.	3.7	25
90	Solution Synthesis and Optical Properties of SnTe Nanocrystals. Crystal Growth and Design, 2011, 11, 2721-2723.	1.4	24

#	Article	IF	Citations
91	Oxide-based inorganic/organic and nanoporous spherical particles: synthesis and functional properties. Science and Technology of Advanced Materials, 2013, 14, 023002.	2.8	24
92	Preparation, characterization and in vitro biological evaluation of (1:2) phenoxodiol-Î²-cyclodextrin complex. Carbohydrate Polymers, 2017, 165, 444-454.	5.1	24
93	Intrinsic and well-defined second generation hot spots in gold nanobipyramids versus gold nanorods. Chemical Communications, 2019, 55, 7707-7710.	2.2	24
94	Synthesis and Size Dependent Reflectance Study of Water Soluble SnS Nanoparticles. Nanomaterials, 2012, 2, 54-64.	1.9	23
95	Synthesis and characterisation of magnetic iron sulfide nanocrystals. Journal of Solid State Chemistry, 2012, 189, 57-62.	1.4	23
96	Dynamic evolution of specific catalytic sites on Pt nanoparticles. Catalysis Science and Technology, 2016, 6, 144-151.	2.1	23
97	From the inside-out: leached metal impurities in multiwall carbon nanotubes for purification or electrocatalysis. Journal of Materials Chemistry A, 2018, 6, 4686-4694.	5.2	23
98	The preparation of chromium, nickel and chromiumâ€“nickel alloy nanoparticles on supports. Journal of Materials Chemistry, 2002, 12, 3809-3813.	6.7	22
99	How to choose a precursor for decomposition solution-phase synthesis: the case of iron nanoparticles. Nanoscale, 2015, 7, 5951-5954.	2.8	22
100	Size and shape evolution of highly magnetic iron nanoparticles from successive growth reactions. Chemical Communications, 2017, 53, 11548-11551.	2.2	22
101	Zero valent iron coreâ€“iron oxide shell nanoparticles as small magnetic particle imaging tracers. Chemical Communications, 2020, 56, 3504-3507.	2.2	22
102	Auâ€“Pd Coreâ€“Shell Nanoparticles as Alcohol Oxidation Catalysts: Effect of Shape and Composition. ChemSusChem, 2013, 6, 1858-1862.	3.6	21
103	Synthesis and catalytic properties of highly branched palladium nanostructures using seeded growth. Nanoscale, 2016, 8, 2867-2874.	2.8	21
104	Threeâ€Dimensional Branched and Faceted Goldâ€“Ruthenium Nanoparticles: Using Nanostructure to Improve Stability in Oxygen Evolution Electrocatalysis. Angewandte Chemie, 2018, 130, 10398-10402.	1.6	21
105	Ultrathin Feâ€Nâ€C Nanosheets Coordinated Feâ€Doped CoNi Alloy Nanoparticles for Electrochemical Water Splitting. Particle and Particle Systems Characterization, 2019, 36, 1800252.	1.2	21
106	Formation of Si-Rich Interfaces by Radiation-Induced Diffusion and Microsegregation in CrN/ZrN Nanolayer Coating. ACS Applied Materials & Interfaces, 2021, 13, 16928-16938.	4.0	21
107	Stimulation and Repair of Peripheral Nerves Using Bioadhesive Graftâ€Antenna. Advanced Science, 2019, 6, 1801212.	5.6	20
108	Raspberry-like small multicore gold nanostructures for efficient photothermal conversion in the first and second near-infrared windows. Chemical Communications, 2019, 55, 4055-4058.	2.2	20

#	Article	IF	Citations
109	Can the Shape of Nanoparticles Enable the Targeting to Cancer Cells over Healthy Cells?. Advanced Functional Materials, 2021, 31, 2007880.	7.8	20
110	Optical tweezers-based characterisation of gold coreâ€“satellite plasmonic nano-assemblies incorporating thermo-responsive polymers. Nanoscale, 2020, 12, 1680-1687.	2.8	19
111	Impact of the Coverage of Aptamers on a Nanoparticle on the Binding Equilibrium and Kinetics between Aptamer and Protein. ACS Sensors, 2021, 6, 538-545.	4.0	19
112	Functionalized Gold Nanorod Probes: A Sophisticated Design of SERS Immunoassay for Biodetection in Complex Media. Analytical Chemistry, 2021, 93, 12954-12965.	3.2	19
113	Combining Nanoconfinement in Ag Core/Porous Cu Shell Nanoparticles with Gas Diffusion Electrodes for Improved Electrocatalytic Carbon Dioxide Reduction. ChemElectroChem, 2021, 8, 4848-4853.	1.7	19
114	Optical Nanopore Sensors for Quantitative Analysis. Nano Letters, 2022, 22, 869-880.	4.5	19
115	How hollow structures form from crystalline ironâ€“iron oxide coreâ€“shell nanoparticles in the electron beam. Chemical Communications, 2013, 49, 6203.	2.2	18
116	Stability of polyelectrolyte-coated iron nanoparticles for T 2 -weighted magnetic resonance imaging. Journal of Magnetism and Magnetic Materials, 2017, 439, 251-258.	1.0	18
117	Real-Time Synchrotron Small-Angle X-ray Scattering Studies of Collagen Structure during Leather Processing. Industrial & Engineering Chemistry Research, 2018, 57, 63-69.	1.8	18
118	The use of a personal glucose meter for detecting procalcitonin through glucose encapsulated within liposomes. Analyst, The, 2019, 144, 6225-6230.	1.7	18
119	Facettierte verzweigte Nickelâ€Nanopartikel mit variierbarer VerzweigungslÃnge fÃ¼r die hochaktive elektrokatalytische Oxidation von Biomasse. Angewandte Chemie, 2020, 132, 15615-15620.	1.6	18
120	Rapid and ultrasensitive electrochemical detection of DNA methylation for ovarian cancer diagnosis. Biosensors and Bioelectronics, 2022, 206, 114126.	5.3	18
121	CdSe Quantum Dot Growth on Magnetic Nickel Nanoparticles. Crystal Growth and Design, 2013, 13, 2486-2492.	1.4	17
122	Using Magnetic Resonance Imaging to Evaluate Dendritic Cell-Based Vaccination. PLoS ONE, 2013, 8, e65318.	1.1	17
123	Electrochemical Reduction of CO 2 on Nitrogenâ€Doped Carbon Catalysts With and Without Iron. ChemElectroChem, 2019, 6, 4626-4636.	1.7	17
124	Simultaneous Functionalization of Carbon Surfaces with Rhodium and Iridium Organometallic Complexes: Hybrid Bimetallic Catalysts for Hydroamination. Organometallics, 2019, 38, 780-787.	1.1	17
125	Functionalized Silicon Electrodes in Electrochemistry. Annual Review of Analytical Chemistry, 2020, 13, 135-158.	2.8	17
126	Dual Signaling DNA Electrochemistry: An Approach To Understand DNA Interfaces. Langmuir, 2018, 34, 1249-1255.	1.6	16

#	Article	IF	Citations
127	Controlled formation of 3D CdS nanocrystal superlattices in solution. Nanotechnology, 2006, 17, 3035-3038.	1.3	15
128	Stability of Chemically Passivated Silicon Electrodes in Aqueous Solutions: Interplay between Bias Voltage and Hydration of the Electrolyte. Journal of Physical Chemistry C, 2016, 120, 15941-15948.	1.5	15
129	Observing the Reversible Single Molecule Electrochemistry of Alexa Fluor 647 Dyes by Total Internal Reflection Fluorescence Microscopy. Angewandte Chemie - International Edition, 2019, 58, 14495-14498.	7.2	15
130	Amorphous silicon on indium tin oxide: a transparent electrode for simultaneous light activated electrochemistry and optical microscopy. Chemical Communications, 2019, 55, 123-126.	2.2	15
131	Gold nanoparticles immobilised in a superabsorbent hydrogel matrix: facile synthesis and application for the catalytic reduction of toxic compounds. Chemical Communications, 2020, 56, 1263-1266.	2.2	15
132	Heterojunctions Based on Amorphous Silicon: A Versatile Surface Engineering Strategy To Tune Peak Position of Redox Monolayers on Photoelectrodes. Journal of Physical Chemistry C, 2020, 124, 836-844.	1.5	15
133	Controlling Pt Crystal Defects on the Surface of Niâ€“Pt Coreâ€“Shell Nanoparticles for Active and Stable Electrocatalysts for Oxygen Reduction. ACS Applied Nano Materials, 2020, 3, 5995-6000.	2.4	15
134	Application of Lanczos-based time-dependent density-functional theory approach to semiconductor nanoparticle quantum dots. European Physical Journal B, 2008, 66, 7-15.	0.6	14
135	Performance enhancement in silicon solar cell by inverted nanopyramid texturing and silicon quantum dots coating. Journal of Renewable and Sustainable Energy, 2014, 6, 011204.	0.8	14
136	Understanding and modelling the magnitude of the change in current of nanopore sensors. Chemical Society Reviews, 2022, 51, 5757-5776.	18.7	14
137	Light-activated electrochemistry on alkyne-terminated Si(100) surfaces towards solution-based redox probes. Electrochimica Acta, 2016, 213, 540-546.	2.6	13
138	ZnO/PVP nanoparticles induce gelation in type I collagen. European Polymer Journal, 2016, 75, 399-405.	2.6	13
139	Synthesis, optical properties and theoretical modelling of discrete emitting states in doped silicon nanocrystals for bioimaging. Nanoscale, 2018, 10, 15600-15607.	2.8	13
140	Single particle detection of protein molecules using dark-field microscopy to avoid signals from nonspecific adsorption. Biosensors and Bioelectronics, 2020, 169, 112612.	5.3	13
141	Ultrasensitive detection of programmed death-ligand 1 (PD-L1) in whole blood using dispersible electrodes. Chemical Communications, 2021, 57, 2559-2562.	2.2	13
142	Protease sensing using nontoxic silicon quantum dots. Journal of Biomedical Optics, 2017, 22, 1.	1.4	13
143	Earthworms lit with quantum dots. Nature Nanotechnology, 2013, 8, 6-7.	15.6	12
144	Strongly Magnetic Iron Nanoparticles Improve the Diagnosis of Small Tumours in the Reticuloendothelial System by Magnetic Resonance Imaging. PLoS ONE, 2013, 8, e56572.	1.1	12

#	Article	IF	Citations
145	Spiers Memorial Lecture. Next generation nanoelectrochemistry: the fundamental advances needed for applications. Faraday Discussions, 2021, 233, 10-32.	1.6	12
146	Synthetic Strategies to Enhance the Electrocatalytic Properties of Branched Metal Nanoparticles. Accounts of Chemical Research, 2022, 55, 1693-1702.	7.6	12
147	Synthesis, characterization and photoconductivity of highly crystalline InP nanowires prepared from solid hydrogen phosphide. Journal of Materials Chemistry, 2009, 19, 4852.	6.7	11
148	Colloidal synthesis of inorganic fullerenenanoparticles and hollow spheres of titanium disulfide. Chemical Communications, 2011, 47, 439-441.	2.2	11
149	One-pot synthesis of water soluble iron nanoparticles using rationally-designed peptides and ligand release. Chemical Communications, 2013, 49, 4540.	2.2	11
150	Cell-targeted platinum nanoparticles and nanoparticle clusters. Organic and Biomolecular Chemistry, 2015, 13, 6567-6572.	1.5	11
151	Electrocatalysis: Understanding platinum migration. Nature Energy, 2016, 1, .	19.8	11
152	Porous Graphene Oxide Films Prepared via the Breath-Figure Method: A Simple Strategy for Switching Access of Redox Species to an Electrode Surface. ACS Applied Materials & Interfaces, 2020, 12, 55181-55188.	4.0	11
153	Predicting the role of seed morphology in the evolution of anisotropic nanocatalysts. Nanoscale, 2017, 9, 1502-1510.	2.8	10
154	Reverse Capillary Action in Carbon Nanotubes: Sucking Metal Nanoparticles Out of Nanotubes. Small, 2011, 7, 737-740.	5.2	9
155	High-resolution light-activated electrochemistry on amorphous silicon-based photoelectrodes. Chemical Communications, 2020, 56, 7435-7438.	2.2	9
156	Patterned Molecular Films of Alkanethiol and PLL-PEG on Goldâ€“Silicate Interfaces: How to Add Functionalities while Retaining Effective Antifouling. Langmuir, 2020, 36, 5243-5250.	1.6	9
157	Synthesis of gold-coated magnetic conglomerate nanoparticles with a fast magnetic response for bio-sensing. Journal of Materials Chemistry C, 2021, 9, 1034-1043.	2.7	9
158	Novel Phosphopeptides as Surface-Active Agents in Iron Nanoparticle Synthesis. Australian Journal of Chemistry, 2012, 65, 680.	0.5	8
159	Electrocatalysis in confined space. Current Opinion in Electrochemistry, 2021, 25, 100644.	2.5	8
160	Calibrating SECCM measurements by means of a nanoelectrode ruler. The intrinsic oxygen reduction activity of PtNi catalyst nanoparticles. Nano Research, 2022, 15, 1564-1569.	5.8	8
161	Controlling hydrogen evolution reaction activity on Ni coreâ€“Pt island nanoparticles by tuning the size of the Pt islands. Chemical Communications, 2021, 57, 2788-2791.	2.2	8
162	How to exploit different endocytosis pathways to allow selective delivery of anticancer drugs to cancer cells over healthy cells. Chemical Science, 2021, 12, 15407-15417.	3.7	8

#	Article	IF	Citations
163	Colloidal Synthesis of Silicon Nanocrystals Via Inverse Micelles Microemulsion. Zeitschrift Fur Physikalische Chemie, 2009, 223, 1417-1426.	1.4	7
164	Albendazole Release from Silica-Chitosan Nanospheres. In Vitro Study on Cervix Cancer Cell Lines. Polymers, 2021, 13, 1945.	2.0	7
165	Perovskite Quantum Dot Solar Cells Fabricated from Recycled Lead-Acid Battery Waste. , 2022, 4, 120-127.		7
166	Mixed Si-Ge nanoparticle quantum dots: a density functional theory study. European Physical Journal B, 2009, 72, 193-201.	0.6	6
167	Toxicity test: Fluorescent silicon nanoparticles. Journal of Physics: Conference Series, 2011, 304, 012042.	0.3	6
168	Silicon and Germanium Nanoparticles with Tailored Surface Chemistry as Novel Inorganic Fiber Brightening Agents. Journal of Agricultural and Food Chemistry, 2013, 61, 7188-7194.	2.4	6
169	High-throughput chemical and chemoenzymatic approaches to saccharide-coated magnetic nanoparticles for MRI. Nanoscale Advances, 2019, 1, 3597-3606.	2.2	6
170	Increasing the Formation of Active Sites on Highly Crystalline Co Branched Nanoparticles for Improved Oxygen Evolution Reaction Electrocatalysis. ChemCatChem, 2020, 12, 3126-3131.	1.8	6
171	Ligandâ€Promoted Cooperative Electrochemical Oxidation of Bioâ€Alcohol on Distorted Cobalt Hydroxides for Bioâ€Hydrogen Extraction. ChemSusChem, 2021, 14, 2612-2620.	3.6	6
172	The Influence of Nanoconfinement on Electrocatalysis. Angewandte Chemie, 0, , .	1.6	6
173	Feasibility of Silicon Quantum Dots as a Biomarker for the Bioimaging of Tear Film. Nanomaterials, 2022, 12, 1965.	1.9	6
174	Upconverter-powered oxygen sensing in electrospun polymeric bilayers. Sensors and Actuators B: Chemical, 2016, 235, 197-205.	4.0	5
175	Observing the Reversible Single Molecule Electrochemistry of Alexa Fluor 647 Dyes by Total Internal Reflection Fluorescence Microscopy. Angewandte Chemie, 2019, 131, 14637-14640.	1.6	5
176	Controlling the Number of Branches and Surface Facets of Pdâ€Core Ruâ€Branched Nanoparticles to Make Highly Active Oxygen Evolution Reaction Electrocatalysts. Chemistry - A European Journal, 2020, 26, 15501-15504.	1.7	5
177	Highly efficient and stable Ru nanoparticle electrocatalyst for the hydrogen evolution reaction in alkaline conditions. Catalysis Science and Technology, 2022, 12, 3606-3613.	2.1	5
178	The synthesis of silicon nanoparticles for biomedical applications (Invited Paper). , 2005, , .		4
179	Oneâ€Pot Synthesis of Functionalized Noble Metal Nanoparticles Using a Rationally Designed Phosphopeptide. Particle and Particle Systems Characterization, 2014, 31, 971-975.	1.2	4
180	Role of Surface Capping Molecule Polarity on the Optical Properties of Solution Synthesized Germanium Nanocrystals. Langmuir, 2017, 33, 8790-8798.	1.6	4

#	Article	IF	Citations
181	Recent Development in Focused Ion Beam Nanofabrication. , 2019, , 327-356.		4
182	Controlling Metallic Nanoparticle Redox Properties for Improved Methanol Oxidation Reaction Electrocatalysis. ChemCatChem, 2019, 11, 5989-5993.	1.8	4
183	Investigating Spatial Heterogeneity of Nanoparticles Movement in Live Cells with Pair-Correlation Microscopy and Phasor Analysis. Analytical Chemistry, 2021, 93, 3803-3812.	3.2	4
184	Zero-valent iron coreâ€“iron oxide shell nanoparticles coated with silica and gold with high saturation magnetization. Chemical Communications, 2021, 57, 13142-13145.	2.2	4
185	A Transparent Semiconducting Surface for Capturing and Releasing Single Cells from a Complex Cell Mixture. ACS Applied Materials & Interfaces, 2022, 14, 18079-18086.	4.0	4
186	The synthesis of silicon and germanium quantum dots for biomedical applications. , 2006, , .		3
187	Structural and magnetic studies of Coâ€“Ti-substituted magnetoplumbite-type (M-type) strontium ferrites by solâ€“gel method. Journal of Sol-Gel Science and Technology, 2016, 77, 306-314.	1.1	3
188	Colloidal silicon quantum dots: from preparation to the modification of self-assembled monolayers for bioimaging and sensing applications. , 2017, , .		3
189	Largely Enhanced Mobility in Trilayered LaAlO₃/SrTiO₃/LaAlO₃ Heterostructures. ACS Applied Materials & Interfaces, 2018, 10, 20950-20958.	4.0	3
190	Surface Patterning of Biomolecules Using Click Chemistry and Lightâ€Activated Electrochemistry to Locally Generate Cu(I). ChemElectroChem, 2020, 7, 4245-4250.	1.7	3
191	Spatially localized electrodeposition of multiple metals via light-activated electrochemistry for surface enhanced Raman spectroscopy applications. Chemical Communications, 2020, 56, 5831-5834.	2.2	3
192	Wafer-scale quasi-layered tungstate-doped polypyrrole film with high volumetric capacitance. Nano Research, 2023, 16, 4895-4900.	5.8	3
193	Monitoring the heterogeneity in single cell responses to drugs using electrochemical impedance and electrochemical noise. Chemical Science, 2021, 12, 2558-2566.	3.7	3
194	Synthesis and Characterization of Highly Crystalline Zinc Phosphide Nanoparticles. Key Engineering Materials, 0, 701, 3-7.	0.4	2
195	Photonics of silicon nanocrystals. , 2005, 6038, 254.		1
196	Silicon nanocrystals as handy biomarkers. , 2007, , .		1
197	Density functional studies of surface functionalization in semiconductor quantum dots. , 2009, , .		1
198	Healing and sealing carbon nanotubesâ€”growth and closure within a transmission electron microscope. Nanoscale, 2011, 3, 1493.	2.8	1

#	Article	IF	Citations
199	Synthetic Bilayers on Mica from Self-Assembly of Hydrogen-Bonded Triazines. Langmuir, 2020, 36, 13301-13311.	1.6	1
200	Magnetic nanoparticles as MRI contrast agents for the diagnosis of Alzheimerâ€™s disease. Alzheimer's and Dementia, 2020, 16, e041609.	0.4	1
201	Facile synthesis of Ge1â^'x Sn x nanowires. Materials Research Express, 2020, 7, 064004.	0.8	1
202	EFFECT OF COMPOSITION AND GROWTH MECHANISM ON THE STRUCTURE FORMATION AND FUNCTIONAL PROPERTIES OF TiAlSiYN/MoN NANOLAYER-THICK COATING. High Temperature Material Processes, 2021, 25, 31-51.	0.2	1
203	Key Parameters That Determine the Magnitude of the Decrease in Current in Nanopore Blockade Sensors. Nano Letters, 2021, 21, 9374-9380.	4.5	1
204	Biomolecular Binding under Confinement: Statistical Predictions of Steric Influence in Absence of Longâ€Distance Interactions. ChemPhysChem, 2022, 23, .	1.0	1
205	Flowâ€based synthesis of goldâ€coated magnetic nanoparticles for magnetoâ€plasmonic sensing applications. Particle and Particle Systems Characterization, 0, , 2200051.	1.2	1
206	Ab-initio studies of functionalized semiconductor quantum dots. , 2006, , .		0
207	The Synthesis of Carbon Nanotubes from Metal Nanoparticles. , 2009, , .		0
208	Metal nanoparticles as catalysts for carbon nanotube synthesis at low reaction temperatures. , 2010, , .		0
209	RÃ¼cktitelbild: Simple Synthesis and Functionalization of Iron Nanoparticles for Magnetic Resonance Imaging (Angew. Chem. 18/2011). Angewandte Chemie, 2011, 123, 4110-4110.	1.6	0
210	Back Cover: Simple Synthesis and Functionalization of Iron Nanoparticles for Magnetic Resonance Imaging (Angew. Chem. Int. Ed. 18/2011). Angewandte Chemie - International Edition, 2011, 50, 4024-4024.	7.2	0
211	Application of novel iron core/iron oxide shell nanoparticles to sentinel lymph node identification. Proceedings of SPIE, 2015, , .	0.8	0
212	Imaging of Tear Film Lipids Using Quantum Dots. , 2018, , .		0
213	Design guidelines for transition metals as interstitial emitters in silicon nanocrystals to tune photoluminescence properties: zinc as biocompatible example. Nanoscale, 2020, 12, 19340-19349.	2.8	0