Richard D Tilley

List of Publications by Citations

194 papers	7,438 citations	46 h-index	80 g-index
224 ext. papers	8,679 ext. citations	9.4 avg, IF	6.31 L-index

#	Paper	IF	Citations
194	Water-soluble photoluminescent silicon quantum dots. *Angewandte Chemie - International Edition*, **2005**, 44, 4550-4	16.4	441
193	Shape control of platinum and palladium nanoparticles for catalysis. *Nanoscale*, **2010**, 2, 2045-53	7.7	272
192	Chemical insight into the origin of red and blue photoluminescence arising from freestanding silicon nanocrystals. *ACS Nano*, **2013**, 7, 2676-85	16.7	231
191	Preparation, self-assembly, and mechanistic study of highly monodispersed nanocubes. *Journal of the American Chemical Society*, **2007**, 129, 3287-91	16.4	212
190	Chemical reactions on surface molecules attached to silicon quantum dots. *Journal of the American Chemical Society*, **2010**, 132, 248-53	16.4	210
189	Ultrafast growth of highly branched palladium nanostructures for catalysis. *ACS Nano*, **2010**, 4, 396-402	16.7	183
188	Micro-emulsion synthesis of monodisperse surface stabilized silicon nanocrystals. *Chemical Communications*, **2005**, 1833-5	5.8	178
187	Solution synthesis, optical properties, and bioimaging applications of silicon nanocrystals. *Accounts of Chemical Research*, **2014**, 47, 3045-51	24.3	163
186	Nucleic acid hybridization on an electrically reconfigurable network of gold-coated magnetic nanoparticles enables microRNA detection in blood. *Nature Nanotechnology*, **2018**, 13, 1066-1071	28.7	159
185	In situ and ex situ studies of platinum nanocrystals: growth and evolution in solution. *Journal of the American Chemical Society*, **2009**, 131, 14590-5	16.4	151
184	Gold coated magnetic nanoparticles: from preparation to surface modification for analytical and biomedical applications. *Chemical Communications*, **2016**, 52, 7528-40	5.8	141
183	How Nanoparticles Coalesce: An in Situ Study of Au Nanoparticle Aggregation and Grain Growth. *Chemistry of Materials*, **2011**, 23, 3312-3317	9.6	138
182	Simple synthesis and functionalization of iron nanoparticles for magnetic resonance imaging. *Angewandte Chemie - International Edition*, **2011**, 50, 4206-9	16.4	138
181	Synthesis of SnS quantum dots. *Journal of the American Chemical Society*, **2009**, 131, 15990-1	16.4	133
180	Challenges and Solutions in Developing Ultrasensitive Biosensors. *Journal of the American Chemical Society*, **2019**, 141, 1162-1170	16.4	131
179	Synthesis, alignment, and magnetic properties of monodisperse nickel nanocubes. *Journal of the American Chemical Society*, **2012**, 134, 855-8	16.4	130
178	Luminescent passive-oxidized silicon quantum dots as biological staining labels and their cytotoxicity effects at high concentration. *Nanotechnology*, **2008**, 19, 415102	3.4	118

177	Synthesis and Structural Characterization of Branched Palladium Nanostructures. *Advanced Materials*, **2009**, 21, 2288-2293	24	115
176	Advances in the Application of Magnetic Nanoparticles for Sensing. *Advanced Materials*, **2019**, 31, e1904385	24	114
175	Shape-controlled growth of platinum nanoparticles. *Small*, **2007**, 3, 1508-12	11	105
174	Sized controlled synthesis, purification, and cell studies with silicon quantum dots. *Nanoscale*, **2011**, 3, 3364-70	7.7	104
173	Gold-palladium core-shell nanocrystals with size and shape control optimized for catalytic performance. *Angewandte Chemie - International Edition*, **2013**, 52, 1477-80	16.4	98
172	Size Controlled Synthesis of Germanium Nanocrystals by Hydride Reducing Agents and Their Biological Applications. *Chemistry of Materials*, **2010**, 22, 482-486	9.6	94
171	Real-time TEM and kinetic Monte Carlo studies of the coalescence of decahedral gold nanoparticles. *ACS Nano*, **2009**, 3, 3809-13	16.7	94
170	Surface morphology dependent photoluminescence from colloidal silicon nanocrystals. *Journal of Physical Chemistry B*, **2005**, 109, 19064-7	3.4	93
169	Synthesis of CdSeS Nanocrystals in Coordinating and Noncoordinating Solvents: Solvent's Role in Evolution of the Optical and Structural Properties. *Chemistry of Materials*, **2007**, 19, 5185-5193	9.6	90
168	Synthesis and Self-Assembly of Triangular and Hexagonal CdS Nanocrystals. *Advanced Materials*, **2005**, 17, 2997-3001	24	89
167	Gold over Branched Palladium Nanostructures for Photothermal Cancer Therapy. *ACS Nano*, **2015**, 9, 12283-91	16.7	86
166	How to control the shape of metal nanostructures in organic solution phase synthesis for plasmonics and catalysis. *Nano Today*, **2013**, 8, 198-215	17.9	83
165	Water-Soluble Photoluminescent Silicon Quantum Dots. *Angewandte Chemie*, **2005**, 117, 4626-4630	3.6	81
164	Flexible and efficient perovskite quantum dot solar cells via hybrid interfacial architecture. *Nature Communications*, **2021**, 12, 466	17.4	73
163	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	7.7	69
162	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	16.4	67
161	Cascade Reactions in Nanozymes: Spatially Separated Active Sites inside Ag-Core-Porous-Cu-Shell Nanoparticles for Multistep Carbon Dioxide Reduction to Higher Organic Molecules. *Journal of the American Chemical Society*, **2019**, 141, 14093-14097	16.4	65
160	Can polymorphism be used to form branched metal nanostructures?. *Advanced Materials*, **2013**, 25, 1552-6	24	62

159	Shape control from thermodynamic growth conditions: the case of hcp ruthenium hourglass nanocrystals. *Journal of the American Chemical Society*, **2013**, 135, 606-9	16.4	62
158	The impact of nanoparticle shape on cellular internalisation and transport: what do the different analysis methods tell us?. *Materials Horizons*, **2019**, 6, 1538-1547	14.4	58
157	Effect of Surfactant Concentration and Aggregation on the Growth Kinetics of Nickel Nanoparticles. *Journal of Physical Chemistry C*, **2013**, 117, 16709-16718	3.8	58
156	Cubic-Core Hexagonal-Branch Mechanism To Synthesize Bimetallic Branched and Faceted Pd-Ru Nanoparticles for Oxygen Evolution Reaction Electrocatalysis. *Journal of the American Chemical Society*, **2018**, 140, 12760-12764	16.4	58
155	Three-Dimensional Branched and Faceted Gold-Ruthenium Nanoparticles: Using Nanostructure to Improve Stability in Oxygen Evolution Electrocatalysis. *Angewandte Chemie - International Edition*, **2018**, 57, 10241-10245	16.4	57
154	Effect of annealing temperature on the structural, photoluminescence and magnetic properties of sol–gel derived Magnetoplumbite-type (M-type) hexagonal strontium ferrite. *Journal of Magnetism and Magnetic Materials*, **2011**, 323, 2318-2322	2.8	53
153	Size-controlled short nanobells: Growth and formation mechanism. *Applied Physics Letters*, **2000**, 77, 4136-4138	3.4	50
152	Hot-injection synthesis of iron/iron oxide core/shell nanoparticles for T2 contrast enhancement in magnetic resonance imaging. *Chemical Communications*, **2011**, 47, 9221-3	5.8	49
151	Synthesis of water-soluble photoluminescent germanium nanocrystals. *Nanotechnology*, **2006**, 17, 3745-3749	3.4	48
150	Photochemical upconversion of near-infrared light from below the silicon bandgap. *Nature Photonics*, **2020**, 14, 585-590	33.9	48
149	Self-Assembled Hollow Polyaniline/Au Nanospheres Obtained by a One-Step Synthesis. *Macromolecular Rapid Communications*, **2008**, 29, 598-603	4.8	45
148	The Synthesis of Nickel Sulfide Nanoparticles on Graphitized Carbon Supports. *Journal of Physical Chemistry B*, **2002**, 106, 10895-10901	3.4	45
147	Electrocatalytic Nanoparticles That Mimic the Three-Dimensional Geometric Architecture of Enzymes: Nanozymes. *Journal of the American Chemical Society*, **2018**, 140, 13449-13455	16.4	45
146	Synthesis and Comparison of the Magnetic Properties of Iron Sulfide Spinel and Iron Oxide Spinel Nanocrystals. *Chemistry of Materials*, **2011**, 23, 2514-2517	9.6	43
145	Liquid-Phase Synthesis of Flower-like and Flake-like Titanium Disulfide Nanostructures. *Chemistry of Materials*, **2009**, 21, 1725-1730	9.6	43
144	Faceted Branched Nickel Nanoparticles with Tunable Branch Length for High-Activity Electrocatalytic Oxidation of Biomass. *Angewandte Chemie - International Edition*, **2020**, 59, 15487-15491	16.4	41
143	Microwave-assisted synthesis of black phosphorus quantum dots: efficient electrocatalyst for oxygen evolution reaction. *Journal of Materials Chemistry A*, **2019**, 7, 12974-12978	13	40
142	Carbon supported Au–Pd core–shell nanoparticles for hydrogen production by alcohol electroreforming. *Catalysis Science and Technology*, **2016**, 6, 6870-6878	5.5	39

141	Advantages of eutectic alloys for creating catalysts in the realm of nanotechnology-enabled metallurgy. *Nature Communications*, **2019**, 10, 4645	17.4	39
140	Simple ligand exchange reactions enabling excellent dispersibility and stability of magnetic nanoparticles in polar organic, aromatic, and protic solvents. *Langmuir*, **2014**, 30, 1514-21	4	38
139	Solution Synthesis, Surface Passivation, Optical Properties, Biomedical Applications, and Cytotoxicity of Silicon and Germanium Nanocrystals. *ChemPlusChem*, **2017**, 82, 60-73	2.8	36
138	Transition Metal Polysulfide Complexes as Single-Source Precursors for Metal Sulfide Nanocrystals. *Journal of Physical Chemistry C*, **2010**, 114, 3817-3821	3.8	36
137	Ostwald's Rule of Stages and its role in CdSe quantum dot crystallization. *Journal of the American Chemical Society*, **2012**, 134, 17046-52	16.4	35
136	Synthesis and Stability of Highly Crystalline and Stable Iron/Iron Oxide Core/Shell Nanoparticles for Biomedical Applications. *ChemPlusChem*, **2012**, 77, 135-140	2.8	35
135	Rod-shaped mesoporous silica nanoparticles for nanomedicine: recent progress and perspectives. *Expert Opinion on Drug Delivery*, **2018**, 15, 881-892	8	35
134	Formation of Branched Ruthenium Nanoparticles for Improved Electrocatalysis of Oxygen Evolution Reaction. *Small*, **2019**, 15, e1804577	11	33
133	Gecko-inspired chitosan adhesive for tissue repair. *NPG Asia Materials*, **2016**, 8, e280-e280	10.3	32
132	Mimicking filtration and transport of rotavirus and adenovirus in sand media using DNA-labeled, protein-coated silica nanoparticles. *Water Research*, **2014**, 62, 167-79	12.5	31
131	Pd-Ru core-shell nanoparticles with tunable shell thickness for active and stable oxygen evolution performance. *Nanoscale*, **2018**, 10, 15173-15177	7.7	30
130	Preparation of Large Scale Monolayers of Gold Nanoparticles on Modified Silicon Substrates Using a Controlled Pulling Method. *Langmuir*, **2003**, 19, 5115-5120	4	30
129	Preserving the Exposed Facets of PtSn 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	16.4	29
128	A rapid readout for many single plasmonic nanoparticles using dark-field microscopy and digital color analysis. *Biosensors and Bioelectronics*, **2018**, 117, 530-536	11.8	28
127	Size and shape evolution of upconverting nanoparticles using microwave assisted synthesis. *CrystEngComm*, **2010**, 12, 1993	3.3	27
126	Tungsten Oxide/Carbide Surface Heterojunction Catalyst with High Hydrogen Evolution Activity. *ACS Energy Letters*, **2020**, 5, 3560-3568	20.1	27
125	GoldPalladium CoreShell Nanocrystals with Size and Shape Control Optimized for Catalytic Performance. *Angewandte Chemie*, **2013**, 125, 1517-1520	3.6	26
124	Controlling PbS nanocrystal aggregation in conducting polymers. *Nanotechnology*, **2005**, 16, 2381-4	3.4	26

123	Understanding the Effect of Au in AuPd Bimetallic Nanocrystals on the Electrocatalysis of the Methanol Oxidation Reaction. *Journal of Physical Chemistry C*, **2018**, 122, 21718-21723	3.8	26
122	Solution Synthesis and Optical Properties of Transition-Metal-Doped Silicon Nanocrystals. *Journal of Physical Chemistry Letters*, **2015**, 6, 1573-6	6.4	24
121	Antibacterial Effect of Au Implantation in Ductile Nanocomposite Multilayer (TiAlSiY)N/CrN Coatings. *ACS Applied Materials & Interfaces*, **2019**, 11, 48540-48550	9.5	24
120	Solution Synthesis of Monodisperse Indium Nanoparticles and Highly Faceted Indium Polyhedra. *Crystal Growth and Design*, **2010**, 10, 3854-3858	3.5	23
119	Solution Synthesis and Optical Properties of SnTe Nanocrystals. *Crystal Growth and Design*, **2011**, 11, 2721-2723	3.5	23
118	The importance of nanoscale confinement to electrocatalytic performance. *Chemical Science*, **2019**, 11, 1233-1240	9.4	23
117	Synthesis and characterisation of magnetic iron sulfide nanocrystals. *Journal of Solid State Chemistry*, **2012**, 189, 57-62	3.3	21
116	Nanoscale upconversion for oxygen sensing. *Materials Science and Engineering C*, **2017**, 70, 76-84	8.3	21
115	How to choose a precursor for decomposition solution-phase synthesis: the case of iron nanoparticles. *Nanoscale*, **2015**, 7, 5951-4	7.7	20
114	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	9.4	20
113	Size and shape evolution of highly magnetic iron nanoparticles from successive growth reactions. *Chemical Communications*, **2017**, 53, 11548-11551	5.8	19
112	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	5.7	19
111	Dynamic evolution of specific catalytic sites on Pt nanoparticles. *Catalysis Science and Technology*, **2016**, 6, 144-151	5.5	19
110	Au-Pd core-shell nanoparticles as alcohol oxidation catalysts: effect of shape and composition. *ChemSusChem*, **2013**, 6, 1858-62	8.3	19
109	Synthesis and Size Dependent Reflectance Study of Water Soluble SnS Nanoparticles. *Nanomaterials*, **2012**, 2, 54-64	5.4	19
108	The preparation of chromium, nickel and chromium–nickel alloy nanoparticles on supports. *Journal of Materials Chemistry*, **2002**, 12, 3809-3813		19
107	Synthesis and catalytic properties of highly branched palladium nanostructures using seeded growth. *Nanoscale*, **2016**, 8, 2867-74	7.7	18
106	From the inside-out: leached metal impurities in multiwall carbon nanotubes for purification or electrocatalysis. *Journal of Materials Chemistry A*, **2018**, 6, 4686-4694	13	17

105	Three-Dimensional Branched and Faceted Gold–Ruthenium Nanoparticles: Using Nanostructure to Improve Stability in Oxygen Evolution Electrocatalysis. *Angewandte Chemie*, **2018**, 130, 10398-10402	3.6	17
104	Ultrathin Fe-N-C Nanosheets Coordinated Fe-Doped CoNi Alloy Nanoparticles for Electrochemical Water Splitting. *Particle and Particle Systems Characterization*, **2019**, 36, 1800252	3.1	17
103	Preparation, characterization and in vitro biological evaluation of (1:2) phenoxodiol-β-cyclodextrin complex. *Carbohydrate Polymers*, **2017**, 165, 444-454	10.3	15
102	Raspberry-like small multicore gold nanostructures for efficient photothermal conversion in the first and second near-infrared windows. *Chemical Communications*, **2019**, 55, 4055-4058	5.8	15
101	Real-Time Synchrotron Small-Angle X-ray Scattering Studies of Collagen Structure during Leather Processing. *Industrial & Engineering Chemistry Research*, **2018**, 57, 63-69	3.9	15
100	CdSe Quantum Dot Growth on Magnetic Nickel Nanoparticles. *Crystal Growth and Design*, **2013**, 13, 2486-2492	3.9	15
99	Controlled formation of 3D CdS nanocrystal superlattices in solution. *Nanotechnology*, **2006**, 17, 3035-3038	3.4	15
98	Linking Phase Segregation and Photovoltaic Performance of Mixed-Halide Perovskite Films through Grain Size Engineering. *ACS Energy Letters*,1649-1658	20.1	15
97	How Nanoparticles Transform Single Molecule Measurements into Quantitative Sensors. *Advanced Materials*, **2020**, 32, e1904339	24	15
96	Functionalized Silicon Electrodes in Electrochemistry. *Annual Review of Analytical Chemistry*, **2020**, 13, 135-158	12.5	15
95	Stability of polyelectrolyte-coated iron nanoparticles for T2-weighted magnetic resonance imaging. *Journal of Magnetism and Magnetic Materials*, **2017**, 439, 251-258	2.8	14
94	Intrinsic and well-defined second generation hot spots in gold nanobipyramids versus gold nanorods. *Chemical Communications*, **2019**, 55, 7707-7710	5.8	14
93	Simple Synthesis and Functionalization of Iron Nanoparticles for Magnetic Resonance Imaging. *Angewandte Chemie*, **2011**, 123, 4292-4295	3.6	14
92	Simultaneous Functionalization of Carbon Surfaces with Rhodium and Iridium Organometallic Complexes: Hybrid Bimetallic Catalysts for Hydroamination. *Organometallics*, **2019**, 38, 780-787	3.8	14
91	Facettierte verzweigte Nickel-Nanopartikel mit variierbarer Verzweigungslänge für die hochaktive elektrokatalytische Oxidation von Biomasse. *Angewandte Chemie*, **2020**, 132, 15615-15620	3.6	13
90	Nanoparticles as contrast agents for the diagnosis of Alzheimer's disease: a systematic review. *Nanomedicine*, **2020**, 15, 725-743	5.6	13
89	Dual Signaling DNA Electrochemistry: An Approach To Understand DNA Interfaces. *Langmuir*, **2018**, 34, 1249-1255	4	13
88	How hollow structures form from crystalline iron-iron oxide core-shell nanoparticles in the electron beam. *Chemical Communications*, **2013**, 49, 6203-5	5.8	13

87	Application of Lanczos-based time-dependent density-functional theory approach to semiconductor nanoparticle quantum dots. *European Physical Journal B*, **2008**, 66, 7-15	1.2	13
86	Amorphous silicon on indium tin oxide: a transparent electrode for simultaneous light activated electrochemistry and optical microscopy. *Chemical Communications*, **2018**, 55, 123-126	5.8	12
85	Electron microscopy and its role in advanced lithium-ion battery research. *Sustainable Energy and Fuels*, **2019**, 3, 1623-1646	5.8	12
84	Selectively detecting attomolar concentrations of proteins using gold lined nanopores in a nanopore blockade sensor. *Chemical Science*, **2020**, 11, 12570-12579	9.4	12
83	Zero valent iron core-iron oxide shell nanoparticles as small magnetic particle imaging tracers. *Chemical Communications*, **2020**, 56, 3504-3507	5.8	12
82	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	3.8	12
81	The use of a personal glucose meter for detecting procalcitonin through glucose encapsulated within liposomes. *Analyst, The*, **2019**, 144, 6225-6230	5	12
80	Is Cu instability during the CO reduction reaction governed by the applied potential or the local CO concentration?. *Chemical Science*, **2021**, 12, 4028-4033	9.4	12
79	Electrochemical Reduction of CO2 on Nitrogen-Doped Carbon Catalysts With and Without Iron. *ChemElectroChem*, **2019**, 6, 4626-4636	4.3	11
78	Light-activated electrochemistry on alkyne-terminated Si(100) surfaces towards solution-based redox probes. *Electrochimica Acta*, **2016**, 213, 540-546	6.7	11
77	ZnO/PVP nanoparticles induce gelation in type I collagen. *European Polymer Journal*, **2016**, 75, 399-405	5.2	11
76	Performance enhancement in silicon solar cell by inverted nanopyramid texturing and silicon quantum dots coating. *Journal of Renewable and Sustainable Energy*, **2014**, 6, 011204	2.5	11
75	One-pot synthesis of water soluble iron nanoparticles using rationally-designed peptides and ligand release. *Chemical Communications*, **2013**, 49, 4540-2	5.8	11
74	Oxide-based inorganic/organic and nanoporous spherical particles: synthesis and functional properties. *Science and Technology of Advanced Materials*, **2013**, 14, 023002	7.1	11
73	Using magnetic resonance imaging to evaluate dendritic cell-based vaccination. *PLoS ONE*, **2013**, 8, e65318	3.7	11
72	Synthesis, optical properties and theoretical modelling of discrete emitting states in doped silicon nanocrystals for bioimaging. *Nanoscale*, **2018**, 10, 15600-15607	7.7	10
71	Cell-targeted platinum nanoparticles and nanoparticle clusters. *Organic and Biomolecular Chemistry* , **2015**, 13, 6567-72	3.9	10
70	Strongly magnetic iron nanoparticles improve the diagnosis of small tumours in the reticuloendothelial system by magnetic resonance imaging. *PLoS ONE*, **2013**, 8, e56572	3.7	10

69	Synthesis, characterization and photoconductivity of highly crystalline InP nanowires prepared from solid hydrogen phosphide. *Journal of Materials Chemistry*, **2009**, 19, 4852		10
68	Protease sensing using nontoxic silicon quantum dots. *Journal of Biomedical Optics*, **2017**, 22, 1-7	3.5	10
67	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	3.8	10
66	Colloidal synthesis of inorganic fullerene nanoparticles and hollow spheres of titanium disulfide. *Chemical Communications*, **2011**, 47, 439-41	5.8	9
65	Formation of Si-Rich Interfaces by Radiation-Induced Diffusion and Microsegregation in CrN/ZrN Nanolayer Coating. *ACS Applied Materials & Interfaces*, **2021**, 13, 16928-16938	9.5	9
64	Predicting the role of seed morphology in the evolution of anisotropic nanocatalysts. *Nanoscale*, **2017**, 9, 1502-1510	7.7	8
63	Novel Phosphopeptides as Surface-Active Agents in Iron Nanoparticle Synthesis. *Australian Journal of Chemistry*, **2012**, 65, 680	1.2	8
62	Reverse capillary action in carbon nanotubes: sucking metal nanoparticles out of nanotubes. *Small*, **2011**, 7, 737-40	11	8
61	Quantum Dot Passivation of Halide Perovskite Films with Reduced Defects, Suppressed Phase Segregation, and Enhanced Stability. *Advanced Science*, **2021**, e2102258	13.6	8
60	Optical tweezers-based characterisation of gold core-satellite plasmonic nano-assemblies incorporating thermo-responsive polymers. *Nanoscale*, **2020**, 12, 1680-1687	7.7	8
59	Role of the Secondary Metal in Ordered and Disordered PtM Intermetallic Nanoparticles: An Example of Pt3Sn Nanocubes for the Electrocatalytic Methanol Oxidation. *ACS Catalysis*, **2021**, 11, 2235-2243	13.1	8
58	A single-Pt-atom-on-Ru-nanoparticle electrocatalyst for CO-resilient methanol oxidation. *Nature Catalysis*, **2022**, 5, 231-237	36.5	8
57	Stimulation and Repair of Peripheral Nerves Using Bioadhesive Graft-Antenna. *Advanced Science*, **2019**, 6, 1801212	13.6	7
56	Patterned Molecular Films of Alkanethiol and PLL-PEG on Gold-Silicate Interfaces: How to Add Functionalities while Retaining Effective Antifouling. *Langmuir*, **2020**, 36, 5243-5250	4	7
55	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	16.4	7
54	Controlling Pt Crystal Defects on the Surface of Ni@Pt Core@Shell Nanoparticles for Active and Stable Electrocatalysts for Oxygen Reduction. *ACS Applied Nano Materials*, **2020**, 3, 5995-6000	5.6	7
53	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	5.8	7
52	Single particle detection of protein molecules using dark-field microscopy to avoid signals from nonspecific adsorption. *Biosensors and Bioelectronics*, **2020**, 169, 112612	11.8	7

51	Can the Shape of Nanoparticles Enable the Targeting to Cancer Cells over Healthy Cells?. *Advanced Functional Materials*, **2021**, 31, 2007880	15.6	7
50	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	9.2	7
49	Silicon and germanium nanoparticles with tailored surface chemistry as novel inorganic fiber brightening agents. *Journal of Agricultural and Food Chemistry*, **2013**, 61, 7188-94	5.7	6
48	Electrocatalysis in confined space. *Current Opinion in Electrochemistry*, **2021**, 25, 100644	7.2	6
47	Ultrasensitive detection of programmed death-ligand 1 (PD-L1) in whole blood using dispersible electrodes. *Chemical Communications*, **2021**, 57, 2559-2562	5.8	6
46	High-throughput chemical and chemoenzymatic approaches to saccharide-coated magnetic nanoparticles for MRI. *Nanoscale Advances*, **2019**, 1, 3597-3606	5.1	5
45	Toxicity test: Fluorescent silicon nanoparticles. *Journal of Physics: Conference Series*, **2011**, 304, 012042	0.3	5
44	Colloidal Synthesis of Silicon Nanocrystals Via Inverse Micelles Microemulsion. *Zeitschrift Fur Physikalische Chemie*, **2009**, 223, 1417-1426	3.1	5
43	Mixed Si-Ge nanoparticle quantum dots: a density functional theory study. *European Physical Journal B*, **2009**, 72, 193-201	1.2	5
42	Upconverter-powered oxygen sensing in electrospun polymeric bilayers. *Sensors and Actuators B: Chemical*, **2016**, 235, 197-205	8.5	5
41	Synthesis of gold-coated magnetic conglomerate nanoparticles with a fast magnetic response for bio-sensing. *Journal of Materials Chemistry C*, **2021**, 9, 1034-1043	7.1	5
40	Role of Surface Capping Molecule Polarity on the Optical Properties of Solution Synthesized Germanium Nanocrystals. *Langmuir*, **2017**, 33, 8790-8798	4	4
39	High-resolution light-activated electrochemistry on amorphous silicon-based photoelectrodes. *Chemical Communications*, **2020**, 56, 7435-7438	5.8	4
38	Increasing the Formation of Active Sites on Highly Crystalline Co Branched Nanoparticles for Improved Oxygen Evolution Reaction Electrocatalysis. *ChemCatChem*, **2020**, 12, 3126-3131	5.2	4
37	The synthesis of silicon nanoparticles for biomedical applications (Invited Paper) **2005**,		4
36	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	9.5	4
35	Colloidal silicon quantum dots: from preparation to the modification of self-assembled monolayers for bioimaging and sensing applications **2017**,		3
34	Controlling Metallic Nanoparticle Redox Properties for Improved Methanol Oxidation Reaction Electrocatalysis. *ChemCatChem*, **2019**, 11, 5989-5993	5.2	3

33	Structural and magnetic studies of Co□i-substituted magnetoplumbite-type (M-type) strontium ferrites by sol□gel method. *Journal of Sol-Gel Science and Technology*, **2016**, 77, 306-314	2.3	3
32	One-Pot Synthesis of Functionalized Noble Metal Nanoparticles Using a Rationally Designed Phosphopeptide. *Particle and Particle Systems Characterization*, **2014**, 31, 971-975	3.1	3
31	The synthesis of silicon and germanium quantum dots for biomedical applications **2006**,		3
30	Optical Nanopore Sensors for Quantitative Analysis.. *Nano Letters*, **2022**,	11.5	3
29	Ligand-Promoted Cooperative Electrochemical Oxidation of Bio-Alcohol on Distorted Cobalt Hydroxides for Bio-Hydrogen Extraction. *ChemSusChem*, **2021**, 14, 2612-2620	8.3	3
28	Spatially localized electrodeposition of multiple metals via light-activated electrochemistry for surface enhanced Raman spectroscopy applications. *Chemical Communications*, **2020**, 56, 5831-5834	5.8	3
27	Controlling hydrogen evolution reaction activity on Ni core-Pt island nanoparticles by tuning the size of the Pt islands. *Chemical Communications*, **2021**, 57, 2788-2791	5.8	3
26	Recent Development in Focused Ion Beam Nanofabrication **2019**, 327-356		2
25	Spiers Memorial Lecture. Next generation nanoelectrochemistry: the fundamental advances needed for applications. *Faraday Discussions*, **2021**,	3.6	2
24	Zero-valent iron core-iron oxide shell nanoparticles coated with silica and gold with high saturation magnetization. *Chemical Communications*, **2021**, 57, 13142-13145	5.8	2
23	Largely Enhanced Mobility in Trilayered LaAlO/SrTiO/LaAlO Heterostructures. *ACS Applied Materials & Interfaces*, **2018**, 10, 20950-20958	9.5	2
22	Functionalized Gold Nanorod Probes: A Sophisticated Design of SERS Immunoassay for Biodetection in Complex Media. *Analytical Chemistry*, **2021**, 93, 12954-12965	7.8	2
21	Perovskite Quantum Dot Solar Cells Fabricated from Recycled Lead-Acid Battery Waste **2022**, 4, 120-127		2
20	Synthesis and Characterization of Highly Crystalline Zinc Phosphide Nanoparticles. *Key Engineering Materials*, **2016**, 701, 3-7	0.4	1
19	Healing and sealing carbon nanotubes--growth and closure within a transmission electron microscope. *Nanoscale*, **2011**, 3, 1493-6	7.7	1
18	Controlling the Number of Branches and Surface Facets of Pd-Core Ru-Branched Nanoparticles to Make Highly Active Oxygen Evolution Reaction Electrocatalysts. *Chemistry - A European Journal*, **2020**, 26, 15501-15504	4.8	1
17	Investigating Spatial Heterogeneity of Nanoparticles Movement in Live Cells with Pair-Correlation Microscopy and Phasor Analysis. *Analytical Chemistry*, **2021**, 93, 3803-3812	7.8	1
16	Calibrating SECCM measurements by means of a nanoelectrode ruler. The intrinsic oxygen reduction activity of PtNi catalyst nanoparticles. *Nano Research*,1	10	1

15	Monitoring the heterogeneity in single cell responses to drugs using electrochemical impedance and electrochemical noise. *Chemical Science*, **2020**, 12, 2558-2566	9.4	1
14	Rapid and ultrasensitive electrochemical detection of DNA methylation for ovarian cancer diagnosis.. *Biosensors and Bioelectronics*, **2022**, 206, 114126	11.8	1
13	The Influence of Nanoconfinement on Electrocatalysis. *Angewandte Chemie*,	3.6	1
12	Magnetic nanoparticles as MRI contrast agents for the diagnosis of Alzheimer□ disease. *Alzheimer□s and Dementia*, **2020**, 16, e041609	1.2	0
11	Surface Patterning of Biomolecules Using Click Chemistry and Light-Activated Electrochemistry to Locally Generate Cu(I). *ChemElectroChem*, **2020**, 7, 4245-4250	4.3	0
10	Facile synthesis of Ge1□ Sn x nanowires. *Materials Research Express*, **2020**, 7, 064004	1.7	0
9	Observing the Reversible Single Molecule Electrochemistry of Alexa Fluor 647 Dyes by Total Internal Reflection Fluorescence Microscopy. *Angewandte Chemie*, **2019**, 131, 14637-14640	3.6	0
8	Key Parameters That Determine the Magnitude of the Decrease in Current in Nanopore Blockade Sensors. *Nano Letters*, **2021**, 21, 9374-9380	11.5	0
7	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	9.4	0
6	Wafer-scale quasi-layered tungstate-doped polypyrrole film with high volumetric capacitance. *Nano Research*,1	10	0
5	Flow-based synthesis of gold-coated magnetic nanoparticles for magneto-plasmonic sensing applications. *Particle and Particle Systems Characterization*,2200051	3.1	0
4	R□ktitelbild: Simple Synthesis and Functionalization of Iron Nanoparticles for Magnetic Resonance Imaging (Angew. Chem. 18/2011). *Angewandte Chemie*, **2011**, 123, 4110-4110	3.6	
3	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	16.4	
2	Synthetic Bilayers on Mica from Self-Assembly of Hydrogen-Bonded Triazines. *Langmuir*, **2020**, 36, 13301-13311	4	
1	Design guidelines for transition metals as interstitial emitters in silicon nanocrystals to tune photoluminescence properties: zinc as biocompatible example. *Nanoscale*, **2020**, 12, 19340-19349	7.7	