Mark T Swihart

List of Publications by Citations

320 papers	16,689 citations	67 h-index	118 g-index
342 ext. papers	18,662 ext. citations	9.1 avg, IF	7.07 L-index

#	Paper	IF	Citations
320	Biocompatible luminescent silicon quantum dots for imaging of cancer cells. *ACS Nano*, **2008**, 2, 873-8	16.7	581
319	A general approach to binary and ternary hybrid nanocrystals. *Nano Letters*, **2006**, 6, 875-81	11.5	568
318	Vapor-phase synthesis of nanoparticles. *Current Opinion in Colloid and Interface Science*, **2003**, 8, 127-133	7.6	506
317	Achievements, challenges and perspectives on cathode catalysts in proton exchange membrane fuel cells for transportation. *Nature Catalysis*, **2019**, 2, 578-589	36.5	429
316	New Generation Cadmium-Free Quantum Dots for Biophotonics and Nanomedicine. *Chemical Reviews*, **2016**, 116, 12234-12327	68.1	369
315	A pilot study in non-human primates shows no adverse response to intravenous injection of quantum dots. *Nature Nanotechnology*, **2012**, 7, 453-8	28.7	361
314	Nanotoxicity assessment of quantum dots: from cellular to primate studies. *Chemical Society Reviews*, **2013**, 42, 1236-50	58.5	359
313	Core/shell NaGdF4:Nd(3+)/NaGdF4 nanocrystals with efficient near-infrared to near-infrared downconversion photoluminescence for bioimaging applications. *ACS Nano*, **2012**, 6, 2969-77	16.7	350
312	Aqueous ferrofluid of magnetite nanoparticles: Fluorescence labeling and magnetophoretic control. *Journal of Physical Chemistry B*, **2005**, 109, 3879-85	3.4	347
311	In vivo targeted cancer imaging, sentinel lymph node mapping and multi-channel imaging with biocompatible silicon nanocrystals. *ACS Nano*, **2011**, 5, 413-23	16.7	340
310	Heavily-doped colloidal semiconductor and metal oxide nanocrystals: an emerging new class of plasmonic nanomaterials. *Chemical Society Reviews*, **2014**, 43, 3908-20	58.5	297
309	Process for Preparing Macroscopic Quantities of Brightly Photoluminescent Silicon Nanoparticles with Emission Spanning the Visible Spectrum. *Langmuir*, **2003**, 19, 8490-8496	4	295
308	Surface functionalization of silicon nanoparticles produced by laser-driven pyrolysis of silane followed by HF-HNO3 etching. *Langmuir*, **2004**, 20, 4720-7	4	256
307	Efficient surface grafting of luminescent silicon quantum dots by photoinitiated hydrosilylation. *Langmuir*, **2005**, 21, 6054-62	4	254
306	Size-Controlled Synthesis of Cu2-xE (E = S, Se) Nanocrystals with Strong Tunable Near-Infrared Localized Surface Plasmon Resonance and High Conductivity in Thin Films. *Advanced Functional Materials*, **2013**, 23, 1256-1264	15.6	228
305	Gold nanoshells on polystyrene cores for control of surface plasmon resonance. *Langmuir*, **2005**, 21, 1610-7	4	221
304	Biocompatible magnetofluorescent probes: luminescent silicon quantum dots coupled with superparamagnetic iron(III) oxide. *ACS Nano*, **2010**, 4, 5131-8	16.7	215

303	Luminescent Colloidal Dispersion of Silicon Quantum Dots from Microwave Plasma Synthesis: Exploring the Photoluminescence Behavior Across the Visible Spectrum. *Advanced Functional Materials*, **2009**, 19, 696-703	15.6	204
302	Biocompatible and biodegradable inorganic nanostructures for nanomedicine: Silicon and black phosphorus. *Nano Today*, **2019**, 25, 135-155	17.9	189
301	Highly Active and Stable Graphene Tubes Decorated with FeCoNi Alloy Nanoparticles via a Template-Free Graphitization for Bifunctional Oxygen Reduction and Evolution. *Advanced Energy Materials*, **2016**, 6, 1601198	21.8	183
300	Multifunctional Nanoparticles as Biocompatible Targeted Probes for Human Cancer Diagnosis and Therapy. *Journal of Materials Chemistry*, **2009**, 19, 4655-4672		175
299	Quantum rod bioconjugates as targeted probes for confocal and two-photon fluorescence imaging of cancer cells. *Nano Letters*, **2007**, 7, 761-5	11.5	173
298	Synthesis of Monodisperse Au, Ag, and Au–Ag Alloy Nanoparticles with Tunable Size and Surface Plasmon Resonance Frequency. *Chemistry of Materials*, **2011**, 23, 4098-4101	9.6	172
297	Assessing clinical prospects of silicon quantum dots: studies in mice and monkeys. *ACS Nano*, **2013**, 7, 7303-10	16.7	167
296	Propionic-Acid-Terminated Silicon Nanoparticles: Synthesis and Optical Characterization. *Chemistry of Materials*, **2006**, 18, 4083-4088	9.6	160
295	Thermochemistry and Kinetics of Silicon Hydride Cluster Formation during Thermal Decomposition of Silane. *Journal of Physical Chemistry B*, **1999**, 103, 64-76	3.4	158
294	Au-Cu(2-x)Se heterodimer nanoparticles with broad localized surface plasmon resonance as contrast agents for deep tissue imaging. *Nano Letters*, **2013**, 13, 4333-9	11.5	154
293	Multi-color quantum dot-based fluorescence immunoassay array for simultaneous visual detection of multiple antibiotic residues in milk. *Biosensors and Bioelectronics*, **2015**, 72, 320-5	11.8	139
292	Organically capped silicon nanoparticles with blue photoluminescence prepared by hydrosilylation followed by oxidation. *Langmuir*, **2006**, 22, 4363-70	4	139
291	Shape Control of CdS Nanocrystals in One-Pot Synthesis. *Journal of Physical Chemistry C*, **2007**, 111, 2447–2458	3.2	137
290	Synthesis and plasmonic properties of silver and gold nanoshells on polystyrene cores of different size and of gold–silver core–shell nanostructures. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2006**, 290, 89-105	5.1	129
289	On-demand hydrogen generation using nanosilicon: splitting water without light, heat, or electricity. *Nano Letters*, **2013**, 13, 451-6	11.5	125
288	Dual Recognition Strategy for Specific and Sensitive Detection of Bacteria Using Aptamer-Coated Magnetic Beads and Antibiotic-Capped Gold Nanoclusters. *Analytical Chemistry*, **2016**, 88, 820-5	7.8	122
287	Biomolecular recognition principles for bionanocombinatorics: an integrated approach to elucidate enthalpic and entropic factors. *ACS Nano*, **2013**, 7, 9632-46	16.7	121
286	Self-Junctioned Copper Nanofiber Transparent Flexible Conducting Film via Electrospinning and Electroplating. *Advanced Materials*, **2016**, 28, 7149-54	24	120

285	Chiral poly(fluorene-alt-benzothiadiazole) (PFBT) and nanocomposites with gold nanoparticles: plasmonically and structurally enhanced chirality. *Journal of the American Chemical Society*, **2010**, 132, 17346-8	16.4	114
284	One-Pot Hydrothermal Synthesis of Carbon Dots with Efficient Up- and Down-Converted Photoluminescence for the Sensitive Detection of Morin in a Dual-Readout Assay. *Langmuir*, **2017**, 33, 1043-1050	4	110
283	Plasmonic Copper Sulfide-Based Materials: A Brief Introduction to Their Synthesis, Doping, Alloying, and Applications. *Journal of Physical Chemistry C*, **2017**, 121, 13435-13447	3.8	100
282	Shape control of PbSe nanocrystals using noble metal seed particles. *Nano Letters*, **2006**, 6, 709-14	11.5	99
281	Size-controlled large-diameter and few-walled carbon nanotube catalysts for oxygen reduction. *Nanoscale*, **2015**, 7, 20290-8	7.7	98
280	Modelling of silicon hydride clustering in a low-pressure silane plasma. *Journal Physics D: Applied Physics*, **2000**, 33, 2731-2746	3	97
279	Comparative Study of Materials-Binding Peptide Interactions with Gold and Silver Surfaces and Nanostructures: A Thermodynamic Basis for Biological Selectivity of Inorganic Materials. *Chemistry of Materials*, **2014**, 26, 4960-4969	9.6	96
278	Subwavelength direct laser patterning of conductive gold nanostructures by simultaneous photopolymerization and photoreduction. *ACS Nano*, **2011**, 5, 1947-57	16.7	92
277	Peptide-mediated synthesis of gold nanoparticles: effects of peptide sequence and nature of binding on physicochemical properties. *Nanoscale*, **2014**, 6, 3165-72	7.7	91
276	Dual-Recognition Fluster Resonance Energy Transfer Based Platform for One-Step Sensitive Detection of Pathogenic Bacteria Using Fluorescent Vancomycin-Gold Nanoclusters and Aptamer-Gold Nanoparticles. *Analytical Chemistry*, **2017**, 89, 4085-4090	7.8	88
275	Shape-Controlled Synthesis of SnE (E = S, Se) Semiconductor Nanocrystals for Optoelectronics. *Chemistry of Materials*, **2014**, 26, 3515-3521	9.6	88
274	Bioconjugation of luminescent silicon quantum dots for selective uptake by cancer cells. *Bioconjugate Chemistry*, **2011**, 22, 1081-8	6.3	87
273	Two- and three-photon absorption and frequency upconverted emission of silicon quantum dots. *Nano Letters*, **2008**, 8, 2688-92	11.5	87
272	Anisotropic Growth of PbSe Nanocrystals on AuFe3O4 Hybrid Nanoparticles. *Advanced Materials*, **2006**, 18, 1889-1894	24	86
271	Luminescent Silicon Nanoparticles Capped by Conductive Polyaniline through the Self-Assembly Method. *Langmuir*, **2004**, 20, 1963-1971	4	85
270	Preparation of quantum dot/drug nanoparticle formulations for traceable targeted delivery and therapy. *Theranostics*, **2012**, 2, 681-94	12.1	84
269	Cu2-x Se nanocrystals with localized surface plasmon resonance as sensitive contrast agents for in vivo photoacoustic imaging: demonstration of sentinel lymph node mapping. *Advanced Healthcare Materials*, **2013**, 2, 952-7	10.1	83
268	Preparation of Gold Nanoparticles and their Applications in Anisotropic Nanoparticle Synthesis and Bioimaging. *Plasmonics*, **2009**, 4, 79-93	2.4	81

267	Twisted Thiophene-Based Chromophores with Enhanced Intramolecular Charge Transfer for Cooperative Amplification of Third-Order Optical Nonlinearity. *Journal of the American Chemical Society*, **2016**, 138, 6975-84	16.4	81
266	Standardizing Size- and Shape-Controlled Synthesis of Monodisperse Magnetite (FeO) Nanocrystals by Identifying and Exploiting Effects of Organic Impurities. *ACS Nano*, **2017**, 11, 6370-6381	16.7	80
265	Cu-Deficient Plasmonic Cu2□S Nanoplate Electrocatalysts for Oxygen Reduction. *ACS Catalysis*, **2015**, 5, 2534-2540	13.1	78
264	Cu2□S1−ySey Alloy Nanocrystals with Broadly Tunable Near-Infrared Localized Surface Plasmon Resonance. *Chemistry of Materials*, **2013**, 25, 4402-4408	9.6	78
263	Formation of ZnTe Nanowires by Oriented Attachment. *Chemistry of Materials*, **2007**, 19, 4108-4110	9.6	78
262	Gravity-driven hybrid membrane for oleophobic-superhydrophilic oil-water separation and water purification by graphene. *Langmuir*, **2014**, 30, 11761-9	4	76
261	BMP2 genetically engineered MSCs and EPCs promote vascularized bone regeneration in rat critical-sized calvarial bone defects. *PLoS ONE*, **2013**, 8, e60473	3.7	74
260	Room-Temperature Synthesis of Covellite Nanoplatelets with Broadly Tunable Localized Surface Plasmon Resonance. *Chemistry of Materials*, **2015**, 27, 2584-2590	9.6	73
259	Unprecedented size-sieving ability in polybenzimidazole doped with polyprotic acids for membrane H2/CO2 separation. *Energy and Environmental Science*, **2018**, 11, 94-100	35.4	73
258	Growth of CdSe Quantum Rods and Multipods Seeded by Noble-Metal Nanoparticles. *Advanced Materials*, **2006**, 18, 1978-1982	24	72
257	Thermochemistry of aluminum species for combustion modeling from Ab Initio molecular orbital calculations. *Combustion and Flame*, **2000**, 121, 210-222	5.3	71
256	Bioconjugation of luminescent silicon quantum dots to gadolinium ions for bioimaging applications. *Nanoscale*, **2012**, 4, 5483-9	7.7	70
255	Sequence-Dependent Structure/Function Relationships of Catalytic Peptide-Enabled Gold Nanoparticles Generated under Ambient Synthetic Conditions. *Journal of the American Chemical Society*, **2016**, 138, 540-8	16.4	69
254	Multiplex Imaging of Pancreatic Cancer Cells by Using Functionalized Quantum Rods. *Advanced Materials*, **2008**, 20, 1412-1417	24	67
253	Tightening polybenzimidazole (PBI) nanostructure via chemical cross-linking for membrane H2/CO2 separation. *Journal of Materials Chemistry A*, **2017**, 5, 19914-19923	13	62
252	Gold nanoparticles surface-terminated with bifunctional ligands. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2004**, 246, 109-113	5.1	62
251	Reversible Crystal Phase Interconversion between Covellite CuS and High Chalcocite Cu2S Nanocrystals. *Chemistry of Materials*, **2017**, 29, 4783-4791	9.6	61
250	Controlling the Size, Shape, Phase, Band Gap, and Localized Surface Plasmon Resonance of Cu2□S and CuxInyS Nanocrystals. *Chemistry of Materials*, **2015**, 27, 1786-1791	9.6	61

249	Facile synthesis and potential bioimaging applications of hybrid upconverting and plasmonic NaGdF4: Yb3+, Er3+/silica/gold nanoparticles. *Theranostics*, **2013**, 3, 275-81	12.1	61
248	Laser-Processed Nanosilicon: A Multifunctional Nanomaterial for Energy and Healthcare. *ACS Nano*, **2019**, 13, 9841-9867	16.7	60
247	Bifunctional Magneto-Optical FePt□CdS Hybrid Nanoparticles. *Journal of Physical Chemistry C*, **2009**, 113, 87-90	3.8	59
246	Solution-phase synthesis of transition metal oxide nanocrystals: Morphologies, formulae, and mechanisms. *Advances in Colloid and Interface Science*, **2017**, 244, 199-266	14.3	58
245	Room temperature ferromagnetism in Mn-doped CdS nanorods. *Applied Physics Letters*, **2008**, 93, 132501	3.4	57
244	Laser-Driven Aerosol Synthesis of Nickel Nanoparticles. *Chemistry of Materials*, **2005**, 17, 1017-1026	9.6	55
243	Nanotextured pillars of electrosprayed bismuth vanadate for efficient photoelectrochemical water splitting. *Langmuir*, **2015**, 31, 3727-37	4	54
242	Two-photon lithography of sub-wavelength metallic structures in a polymer matrix. *Advanced Materials*, **2010**, 22, 3695-9	24	54
241	Control of the Morphology and Size of PbS Nanowires Using Gold Nanoparticles. *Chemistry of Materials*, **2006**, 18, 5965-5972	9.6	52
240	Sensitivity, principal component and flux analysis applied to signal transduction: the case of epidermal growth factor mediated signaling. *Bioinformatics*, **2005**, 21, 1194-202	7.2	52
239	Hierarchical zeolitic imidazolate framework-derived manganese-doped zinc oxide decorated carbon nanofiber electrodes for high performance flexible supercapacitors. *Chemical Engineering Journal*, **2019**, 371, 657-665	14.7	51
238	Electrosprayed BiVO4 nanopillars coated with atomic-layer-deposited ZnO/TiO2 as highly efficient photoanodes for solar water splitting. *Chemical Engineering Journal*, **2018**, 333, 721-729	14.7	51
237	Additive controlled synthesis of gold nanorods (GNRs) for two-photon luminescence imaging of cancer cells. *Nanotechnology*, **2010**, 21, 285106	3.4	51
236	On the Mechanism of Homogeneous Decomposition of the Chlorinated Silanes. Chain Reactions Propagated by Divalent Silicon Species. *Journal of Physical Chemistry A*, **1998**, 102, 1542-1549	2.8	51
235	ZnO/MnOx Nanoflowers for High-Performance Supercapacitor Electrodes. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 3697-3708	8.3	50
234	Composition-Dependent Crystal Phase, Optical Properties, and Self-Assembly of Cu$_2$SnS$_3$ Colloidal Nanocrystals. *Chemistry of Materials*, **2015**, 27, 1342-1348	9.6	50
233	Aerosol dynamics modeling of silicon nanoparticle formation during silane pyrolysis: a comparison of three solution methods. *Journal of Aerosol Science*, **2004**, 35, 889-908	4.3	50
232	Carbon nanofibers decorated with FeO nanoparticles as a flexible electrode material for symmetric supercapacitors. *Chemical Engineering Journal*, **2017**, 328, 776-784	14.7	49

231	Size-, Shape-, and Composition-Controlled Synthesis and Localized Surface Plasmon Resonance of Copper Tin Selenide Nanocrystals. *Chemistry of Materials*, **2015**, 27, 3378-3388	9.6	48
230	Spray pyrolysis synthesis of ZnS nanoparticles from a single-source precursor. *Nanotechnology*, **2009**, 20, 235603	3.4	48
229	Thermochemistry of Silicon–Hydrogen Compounds Generalized from Quantum Chemical Calculations. *Journal of Physical Chemistry A*, **2004**, 108, 874-897	2.8	48
228	Cooperative coupling of cyanine and tictoid twisted π-systems to amplify organic chromophore cubic nonlinearities. *Journal of the American Chemical Society*, **2015**, 137, 4622-5	16.4	47
227	Supersonically Sprayed Zn2SnO4/SnO2/CNT Nanocomposites for High-Performance Supercapacitor Electrodes. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 14031-14040	8.3	47
226	Morphology engineering of photoelectrodes for efficient photoelectrochemical water splitting. *Nano Energy*, **2020**, 72, 104648	17.1	46
225	Recent advances in copper sulphide-based nanoheterostructures. *Chemical Society Reviews*, **2019**, 48, 4950-4965	58.5	45
224	Electrosprayed heterojunction WO3/BiVO4 films with nanotextured pillar structure for enhanced photoelectrochemical water splitting. *Applied Physics Letters*, **2015**, 106, 151603	3.4	45
223	Kuramite Cu3SnS4 and Mohite Cu2SnS3 Nanoplatelet Synthesis Using Covellite CuS Templates with Sn(II) and Sn(IV) Sources. *Chemistry of Materials*, **2017**, 29, 3555-3562	9.6	43
222	Production of Flexible Transparent Conducting Films of Self-Fused Nanowires via One-Step Supersonic Spraying. *Advanced Functional Materials*, **2017**, 27, 1602548	15.6	43
221	Thermally induced superhydrophilicity in TiO2 films prepared by supersonic aerosol deposition. *ACS Applied Materials & Interfaces*, **2013**, 5, 6155-60	9.5	43
220	Remote Optically Controlled Modulation of Catalytic Properties of Nanoparticles through Reconfiguration of the Inorganic/Organic Interface. *ACS Nano*, **2016**, 10, 9470-9477	16.7	43
219	An experimental and numerical study of particle nucleation and growth during low-pressure thermal decomposition of silane. *Journal of Aerosol Science*, **2003**, 34, 691-711	4.3	42
218	Numerical Modeling of Gas-Phase Nucleation and Particle Growth during Chemical Vapor Deposition of Silicon. *Journal of the Electrochemical Society*, **2000**, 147, 2303	3.9	42
217	Ab initio structures and energetics of selected hydrogenated silicon clusters containing six to ten silicon atoms. *Chemical Physics Letters*, **1999**, 307, 527-532	2.5	42
216	A Solution-Processed UV-Sensitive Photodiode Produced Using a New Silicon Nanocrystal Ink. *Advanced Functional Materials*, **2014**, 24, 6016-6022	15.6	41
215	Thermochemistry of C–C and C–H Bond Breaking in Fatty Acid Methyl Esters. *Energy & Fuels*, **2007**, 21, 2027-2032	4.1	41
214	Hierarchically designed ZIF-8-derived Ni@ZnO/carbon nanofiber freestanding composite for stable Li storage. *Chemical Engineering Journal*, **2018**, 351, 127-134	14.7	41

213	Valence Selectivity of Cation Incorporation into Covellite CuS Nanoplatelets. *Chemistry of Materials*, **2018**, 30, 1399-1407	9.6	40
212	Synthesis, growth mechanisms, and applications of palladium-based nanowires and other one-dimensional nanostructures. *Nanoscale*, **2019**, 11, 19058-19085	7.7	40
211	Decoration of MnO Nanocrystals on Flexible Freestanding Carbon Nanofibers for Lithium Ion Battery Anodes. *Electrochimica Acta*, **2017**, 231, 582-589	6.7	39
210	Reductant and sequence effects on the morphology and catalytic activity of peptide-capped Au nanoparticles. *ACS Applied Materials & Interfaces*, **2015**, 7, 8843-51	9.5	39
209	Zeolitic imidazolate framework-8 derived zinc oxide/ carbon nanofiber as freestanding electrodes for lithium storage in lithium-ion batteries. *Journal of Power Sources*, **2018**, 395, 349-357	8.9	39
208	Creating ligand-free silicon germanium alloy nanocrystal inks. *ACS Nano*, **2011**, 5, 7950-9	16.7	39
207	Templated Synthesis of Gold Nanorods (NRs): The Effects of Cosurfactants and Electrolytes on the Shape and Optical Properties. *Topics in Catalysis*, **2008**, 47, 49-60	2.3	39
206	Integration of a novel injectable nano calcium sulfate/alginate scaffold and BMP2 gene-modified mesenchymal stem cells for bone regeneration. *Tissue Engineering - Part A*, **2013**, 19, 508-18	3.9	38
205	Detailed Kinetic Modeling of Silicon Nanoparticle Formation Chemistry via Automated Mechanism Generation. *Journal of Physical Chemistry A*, **2004**, 108, 10122-10132	2.8	38
204	Controllable conversion of plasmonic Cu2-xS nanoparticles to Au2S by cation exchange and electron beam induced transformation of Cu2-xS-Au2S core/shell nanostructures. *Nanoscale*, **2014**, 6, 8852-7	7.7	37
203	Thermochemistry and Thermal Decomposition of the Chlorinated Disilanes (Si2HnCl6-n, n = 0[illegible]6) Studied by ab Initio Molecular Orbital Methods. *Journal of Physical Chemistry A*, **1997**, 101, 7434-7445	2.8	37
202	Synthesis of Tellurium Dioxide Nanoparticles by Spray Pyrolysis. *Chemistry of Materials*, **2007**, 19, 1290-1301	9.6	36
201	Near-IR responsive nanostructures for nanobiophotonics: emerging impacts on nanomedicine. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2016**, 12, 771-788	6	35
200	Boron Nanoparticles for Room-Temperature Hydrogen Generation from Water. *Advanced Energy Materials*, **2016**, 6, 1502550	21.8	35
199	Copper@ZIF-8 Core-Shell Nanowires for Reusable Antimicrobial Face Masks. *Advanced Functional Materials*, **2020**, 31, 2008054	15.6	35
198	Selective Cation Incorporation into Copper Sulfide Based Nanoheterostructures. *ACS Nano*, **2018**, 12, 7803-7811	16.7	34
197	Nanotextured cupric oxide nanofibers coated with atomic layer deposited ZnO-TiO2 as highly efficient photocathodes. *Applied Catalysis B: Environmental*, **2017**, 201, 479-485	21.8	33
196	Laser-driven synthesis and magnetic properties of iron nanoparticles. *Journal of Nanoparticle Research*, **2006**, 8, 335-342	2.3	33

195	Electrosprayed MnO2 on ZnO nanorods with atomic layer deposited TiO2 layer for photoelectrocatalytic water splitting. *Applied Catalysis B: Environmental*, **2020**, 271, 118928	21.8	32
194	An Improved Data Inversion Program for Obtaining Aerosol Size Distributions from Scanning Differential Mobility Analyzer Data. *Aerosol Science and Technology*, **2003**, 37, 145-161	3.4	32
193	Electron Affinities of Selected Hydrogenated Silicon Clusters (SixHy, x = 1□7, y = 0□15) from Density Functional Theory Calculations. *Journal of Physical Chemistry A*, **2000**, 104, 6083-6087	2.8	32
192	Unexpectedly Strong Size-Sieving Ability in Carbonized Polybenzimidazole for Membrane H/CO Separation. *ACS Applied Materials & Interfaces*, **2019**, 11, 47365-47372	9.5	32
191	Dramatic Enhancement of Quantum Cutting in Lanthanide-Doped Nanocrystals Photosensitized with an Aggregation-Induced Enhanced Emission Dye. *Nano Letters*, **2018**, 18, 4922-4926	11.5	32
190	Scalable Binder-Free Supersonic Cold Spraying of Nanotextured Cupric Oxide (CuO) Films as Efficient Photocathodes. *ACS Applied Materials & Interfaces*, **2016**, 8, 15406-14	9.5	31
189	Highly efficient electrodes for supercapacitors using silver-plated carbon nanofibers with enhanced mechanical flexibility and long-term stability. *Chemical Engineering Journal*, **2018**, 353, 189-196	14.7	31
188	A general single-pot heating method for morphology, size and luminescence-controllable synthesis of colloidal ZnO nanocrystals. *Nanoscale*, **2013**, 5, 8029-36	7.7	31
187	Core-shell quantum dots coated with molecularly imprinted polymer for selective photoluminescence sensing of perfluorooctanoic acid. *Talanta*, **2019**, 194, 1-6	6.2	29
186	Au-CuSe heterogeneous nanocrystals for efficient photothermal heating for cancer therapy. *Journal of Materials Chemistry B*, **2017**, 5, 4934-4942	7.3	28
185	Supersonically blown nylon-6 nanofibers entangled with graphene flakes for water purification. *Nanoscale*, **2015**, 7, 19027-35	7.7	28
184	Engineering reduced graphene oxides with enhanced electrochemical properties through multiple-step reductions. *Electrochimica Acta*, **2017**, 258, 735-743	6.7	28
183	Synthesis and characterization of nanocrystalline calcium sulfate for use in osseous regeneration. *Biomedical Materials (Bristol)*, **2011**, 6, 055007	3.5	28
182	Flexible freestanding Fe2O3-SnO -carbon nanofiber composites for Li ion battery anodes. *Journal of Alloys and Compounds*, **2017**, 700, 259-266	5.7	27
181	Ab Initio Molecular Orbital Study of the Thermochemistry and Reactions of the Chlorinated Disilenes and Their Isomers (Si2HnCl4-n). *Journal of Physical Chemistry A*, **1998**, 102, 785-792	2.8	27
180	Supersonic Cold Spraying for Energy and Environmental Applications: One-Step Scalable Coating Technology for Advanced Micro- and Nanotextured Materials. *Advanced Materials*, **2020**, 32, e1905028	24	27
179	Carbon Nanofibers Loaded with Carbon Nanotubes and Iron Oxide as Flexible Freestanding Lithium-Ion Battery Anodes. *Electrochimica Acta*, **2017**, 253, 479-488	6.7	26
178	Zeolitic imidazolate framework-7 textile-derived nanocomposite fibers as freestanding supercapacitor electrodes. *Journal of Electroanalytical Chemistry*, **2018**, 810, 239-247	4.1	26

177	Sorption-Enhanced Mixed Matrix Membranes with Facilitated Hydrogen Transport for Hydrogen Purification and CO2 Capture. *Advanced Functional Materials*, **2019**, 29, 1904357	15.6	26
176	Thermochemistry of CO, (CO)O, and (CO)C bond breaking in fatty acid methyl esters. *Combustion and Flame*, **2008**, 155, 334-342	5.3	26
175	Quasi-reversible photoluminescence quenching of stable dispersions of silicon nanoparticles. *Journal of Materials Chemistry*, **2005**, 15, 2028		26
174	Rate constants for the homogeneous gas-phase Al/HCl combustion chemistry. *Combustion and Flame*, **2003**, 132, 91-101	5.3	26
173	Manipulating Magneto-Optic Properties of a Chiral Polymer by Doping with Stable Organic Biradicals. *Nano Letters*, **2016**, 16, 5451-5	11.5	25
172	Thermochemistry of Species Potentially Formed During NTO/MMH Hypergolic Ignition. *Propellants, Explosives, Pyrotechnics*, **2008**, 33, 209-212	1.7	25
171	Aqueous Ferrofluid of Citric Acid Coated Magnetite Particles. *Materials Research Society Symposia Proceedings*, **2003**, 789, 23		25
170	Elucidating the influence of materials-binding peptide sequence on Au surface interactions and colloidal stability of Au nanoparticles. *Nanoscale*, **2017**, 9, 421-432	7.7	24
169	Triggering nanoparticle surface ligand rearrangement via external stimuli: light-based actuation of biointerfaces. *Nanoscale*, **2015**, 7, 13638-45	7.7	24
168	Flexible and freestanding core-shell SnOx/carbon nanofiber mats for high-performance supercapacitors. *Journal of Alloys and Compounds*, **2017**, 728, 1362-1371	5.7	24
167	An aerosol-mediated magnetic colloid: Study of nickel nanoparticles. *Journal of Applied Physics*, **2005**, 98, 054308	2.5	24
166	Supersonically sprayed Fe2O3/C/CNT composites for highly stable Li-ion battery anodes. *Chemical Engineering Journal*, **2020**, 395, 125018	14.7	23
165	Highly nanotextured Bi2O3 pillars by electrostatic spray deposition as photoanodes for solar water splitting. *Journal of Alloys and Compounds*, **2018**, 764, 881-889	5.7	23
164	Strong energy-transfer-induced enhancement of Er3+ luminescence in In2O3 nanocrystal codoped silica films. *Applied Physics Letters*, **2013**, 103, 181906	3.4	23
163	Generation and growth of nanoparticles in low-pressure plasmas. *Pure and Applied Chemistry*, **1999**, 71, 1871-1877	2.1	23
162	Supersonically sprayed iron oxide nanoparticles with atomic-layer-deposited ZnO/TiO2 layers for solar water splitting. *Journal of Alloys and Compounds*, **2019**, 798, 35-44	5.7	22
161	Oxidation-resistant metallized nanofibers as transparent conducting films and heaters. *Acta Materialia*, **2018**, 143, 174-180	8.4	22
160	Optical Actuation of Inorganic/Organic Interfaces: Comparing Peptide-Azobenzene Ligand Reconfiguration on Gold and Silver Nanoparticles. *ACS Applied Materials & Interfaces*, **2016**, 8, 1050-60	8.5	22

159	Supersonically blown reduced graphene oxide loaded Fe3C nanofibers for lithium ion battery anodes. *Journal of Alloys and Compounds*, **2017**, 726, 114-120	5.7	22
158	Shape Evolution of Biconcave Djurleite CuS Nanoplatelets Produced from CuInS Nanoplatelets by Cation Exchange. *Journal of the American Chemical Society*, **2017**, 139, 18598-18606	16.4	22
157	Energy transfer from a dye donor to enhance the luminescence of silicon quantum dots. *Nanoscale*, **2012**, 4, 5163-8	7.7	22
156	High-Temperature Kinetics of AlCl[sub 3] Decomposition in the Presence of Additives for Chemical Vapor Deposition. *Journal of the Electrochemical Society*, **2002**, 149, C261	3.9	22
155	Stable High-Capacity Lithium Ion Battery Anodes Produced by Supersonic Spray Deposition of Hematite Nanoparticles and Self-Healing Reduced Graphene Oxide. *Electrochimica Acta*, **2017**, 228, 604-610	6.7	21
154	High-performance supercapacitors using flexible and freestanding MnOx/carbamide carbon nanofibers. *Applied Surface Science*, **2017**, 423, 210-218	6.7	21
153	Exploring the amphiphilicity of PEGylated gold nanorods: mechanical phase transfer and self-assembly. *Chemical Communications*, **2013**, 49, 9350-2	5.8	21
152	Mo-doped BiVO4 nanotextured pillars as efficient photoanodes for solar water splitting. *Journal of Alloys and Compounds*, **2017**, 726, 1138-1146	5.7	21
151	Polymer and surfactant-templated synthesis of hollow and porous ZnS nano- and microspheres in a spray pyrolysis reactor. *Langmuir*, **2015**, 31, 413-23	4	21
150	Electrosprayed graphene decorated with ZnO nanoparticles for supercapacitors. *Journal of Alloys and Compounds*, **2018**, 741, 781-791	5.7	20
149	Tuning the morphology of electrosprayed BiVO4 from nanopillars to nanoferns via pH control for solar water splitting. *Journal of Alloys and Compounds*, **2018**, 769, 193-200	5.7	20
148	Carbon- and oxygen-free Cu(InGa)(SSe)2 solar cell with a 4.63% conversion efficiency by electrostatic spray deposition. *ACS Applied Materials & Interfaces*, **2014**, 6, 8369-77	9.5	20
147	Nonlinear optical absorption and stimulated Mie scattering in metallic nanoparticle suspensions. *Journal of Chemical Physics*, **2013**, 138, 024202	3.9	20
146	Reactions in the AlH2Cl System Studied by ab Initio Molecular Orbital and Density Functional Methods. *Journal of Physical Chemistry A*, **2001**, 105, 264-273	2.8	20
145	Self-Cleaning Anticondensing Glass via Supersonic Spraying of Silver Nanowires, Silica, and Polystyrene Nanoparticles. *ACS Applied Materials & Interfaces*, **2017**, 9, 35325-35332	9.5	19
144	Polymer-antibiotic conjugates as antibacterial additives in dental resins. *Biomaterials Science*, **2018**, 7, 287-295	7.4	19
143	Supersonic aerosol-deposited TiO2 photoelectrodes for photoelectrochemical solar water splitting. *RSC Advances*, **2014**, 4, 8661-8670	3.7	19
142	Flame-driven aerosol synthesis of copper-nickel nanopowders and conductive nanoparticle films. *ACS Applied Materials & Interfaces*, **2014**, 6, 13542-51	9.5	19

141	Synthesis of monodisperse CdS nanorods catalyzed by Au nanoparticles. *Nano Research*, **2008**, 1, 314-320	10	19
140	Supersonically sprayed rGO□n2SnO4 composites as flexible, binder-free, scalable, and high-capacity lithium ion battery anodes. *Journal of Alloys and Compounds*, **2018**, 766, 331-340	5.7	18
139	Boron-hyperdoped silicon for the selective oxidative dehydrogenation of propane to propylene. *Chemical Communications*, **2020**, 56, 9882-9885	5.8	18
138	Hydrogen Sensing at Room Temperature Using Flame-Synthesized Palladium-Decorated Crumpled Reduced Graphene Oxide Nanocomposites. *ACS Sensors*, **2020**, 5, 2344-2350	9.2	18
137	Synthesis and characterization of silver nanoparticle-loaded amorphous calcium phosphate microspheres for dental applications. *Nanoscale Advances*, **2019**, 1, 627-635	5.1	17
136	Atomic-layer-deposited TiO2-SnZnO/carbon nanofiber composite as a highly stable, flexible and freestanding anode material for lithium-ion batteries. *Chemical Engineering Journal*, **2018**, 338, 72-81	14.7	17
135	Enhancing silicon quantum dot uptake by pancreatic cancer cells via pluronic□ encapsulation and antibody targeting. *Journal of Solid Tumors*, **2012**, 2,	0.3	17
134	A High-Temperature Reducing Jet Reactor for Flame-Based Metal Nanoparticle Production. *Aerosol Science and Technology*, **2010**, 44, 1083-1088	3.4	17
133	Novel pathways for enhancing nonlinearity of organics utilizing metal clusters. *Journal of Physical Chemistry A*, **2010**, 114, 7590-4	2.8	17
132	Synthesis and Properties of Plasmonic Boron-Hyperdoped Silicon Nanoparticles. *Advanced Functional Materials*, **2019**, 29, 1807788	15.6	17
131	Flame-synthesized nickel-silver nanoparticle inks provide high conductivity without sintering. *Chemical Engineering Journal*, **2019**, 372, 648-655	14.7	16
130	Ni-core CuO-shell fibers produced by electrospinning and electroplating as efficient photocathode materials for solar water splitting. *Nanoscale*, **2018**, 10, 9720-9728	7.7	16
129	Peptide-Mediated Growth and Dispersion of Au Nanoparticles in Water via Sequence Engineering. *Journal of Physical Chemistry C*, **2018**, 122, 11532-11542	3.8	16
128	Creating Conductive Copper□Silver Bimetallic Nanostructured Coatings Using a High Temperature Reducing Jet Aerosol Reactor. *Aerosol Science and Technology*, **2013**, 47, 858-866	3.4	16
127	Luminescence of colloidal CdSe/ZnS nanoparticles: high sensitivity to solvent phase transitions. *Nanoscale Research Letters*, **2011**, 6, 142	5	16
126	Electrosprayed graphene films decorated with bimetallic (zinc-iron) oxide for lithium-ion battery anodes. *Journal of Alloys and Compounds*, **2019**, 782, 699-708	5.7	16
125	Effects of Cd-based Quantum Dot Exposure on the Reproduction and Offspring of Kunming Mice over Multiple Generations. *Nanotheranostics*, **2017**, 1, 23-37	5.6	15
124	Controllable colloidal synthesis of anisotropic tin dichalcogenide nanocrystals for thin film thermoelectrics. *Nanoscale*, **2018**, 10, 2533-2541	7.7	15

123	Controllable Colloidal Synthesis of Tin(II) Chalcogenide Nanocrystals and Their Solution-Processed Flexible Thermoelectric Thin Films. *Small*, **2018**, 14, e1801949	11	15
122	Boron-Nanoparticle-Loaded Folic-Acid-Functionalized Liposomes to Achieve Optimum Boron Concentration for Boron Neutron Capture Therapy of Cancer. *Journal of Biomedical Nanotechnology*, **2019**, 15, 1714-1723	4	15
121	Plasmonic Semiconductor Nanocrystals as Chemical Sensors: Pb2+ Quantitation via Aggregation-Induced Plasmon Resonance Shift. *Plasmonics*, **2014**, 9, 893-898	2.4	15
120	Supersonically sprayed gas- and water-sensing MIL-100(Fe) films. *Journal of Alloys and Compounds*, **2017**, 722, 996-1001	5.7	15
119	Plasmonic gold and luminescent silicon nanoplatforms for multimode imaging of cancer cells. *Integrative Biology (United Kingdom)*, **2013**, 5, 144-50	3.7	15
118	Anharmonic thermochemistry of cyclopentadiene derivatives. *International Journal of Chemical Kinetics*, **2003**, 35, 453-463	1.4	15
117	Vapor-phase production of nanomaterials. *Chemical Society Reviews*, **2021**, 50, 7132-7249	58.5	15
116	Controlled Synthesis of CuSe Nanoparticles as Near-Infrared Photothermal Agents and Irradiation Wavelength Dependence of Their Photothermal Conversion Efficiency. *Langmuir*, **2018**, 34, 13905-13909	4	15
115	Supersonically spray-coated zinc ferrite/graphitic-carbon nitride composite as a stable high-capacity anode material for lithium-ion batteries. *Journal of Alloys and Compounds*, **2018**, 768, 525-534	5.7	15
114	Plasmon-enhanced two-photon-induced isomerization for highly-localized light-based actuation of inorganic/organic interfaces. *Nanoscale*, **2016**, 8, 4194-202	7.7	14
113	Magnetically encoded luminescent composite nanoparticles through layer-by-layer self-assembly. *Chemistry - A European Journal*, **2014**, 20, 14642-9	4.8	14
112	Coupled plasmons induce broadband circular dichroism in patternable films of silver nanoparticles with chiral ligands. *Nanoscale*, **2013**, 5, 10550-5	7.7	14
111	Dramatic Structural Enhancement of Chirality in Photopatternable Nanocomposites of Chiral Poly(fluorene-alt-benzothiadiazole) (PFBT) in Achiral SU-8 Photoresist. *Advanced Functional Materials*, **2012**, 22, 5074-5080	15.6	14
110	Nanoporous polymeric photonic crystals by emulsion holography. *Journal of Materials Chemistry*, **2009**, 19, 3998		14
109	Facile processes for producing robust, transparent, conductive platinum nanofiber mats. *Nanoscale*, **2017**, 9, 6076-6084	7.7	13
108	Dodecahedral ZnO/C framework on reduced graphene oxide sheets for high-performance Li-ion battery anodes. *Journal of Alloys and Compounds*, **2020**, 834, 155208	5.7	13
107	Understanding the Effects of NaCl, NaBr and Their Mixtures on Silver Nanowire Nucleation and Growth in Terms of the Distribution of Electron Traps in Silver Halide Crystals. *Nanomaterials*, **2018**, 8,	5.4	13
106	Rapid supersonic spraying of Cu(In,Ga)(S,Se)2 nanoparticles to fabricate a solar cell with 5.49% conversion efficiency. *Acta Materialia*, **2017**, 123, 44-54	8.4	13

105	Enhanced Performance of a Polymer Solar Cell upon Addition of Free-Standing, Freshly Etched, Photoluminescent Silicon Nanocrystals. *Applied Physics Express*, **2012**, 5, 022302	2.4	13
104	Bioengineering silicon quantum dot theranostics using a network analysis of metabolomic and proteomic data in cardiac ischemia. *Theranostics*, **2013**, 3, 719-28	12.1	13
103	Characterization of the near-surface gas-phase chemical environment in atmospheric-pressure plasma chemical vapor deposition of diamond. *Diamond and Related Materials*, **1999**, 8, 1863-1874	3.5	13
102	Progress and potential of electrospinning-derived substrate-free and binder-free lithium-ion battery electrodes. *Chemical Engineering Journal*, **2022**, 430, 132876	14.7	13
101	Enhanced fatigue resistance of suppressed hysteresis in perovskite solar cells by an organic crosslinker. *Solar Energy Materials and Solar Cells*, **2018**, 176, 30-35	6.4	13
100	Supersonic cold spraying of titania nanoparticles on reduced graphene oxide for lithium ion battery anodes. *Journal of Alloys and Compounds*, **2017**, 715, 161-169	5.7	12
99	Highly transparent, conducting, body-attachable metallized fibers as a flexible and stretchable film. *Journal of Alloys and Compounds*, **2019**, 790, 1127-1136	5.7	12
98	Silicon nanoparticle size-dependent open circuit voltage in an organic□inorganic hybrid solar cell. *Current Applied Physics*, **2014**, 14, 127-131	2.6	12
97	Manipulating nanoscale interactions in a polymer nanocomposite for chiral control of linear and nonlinear optical functions. *Advanced Materials*, **2014**, 26, 1607-11	24	12
96	Nonconventional tight-binding method for the calculation of the total energy and spectroscopic energies of atomic clusters: Transferable parameters for silicon. *Physical Review B*, **2005**, 72,	3.3	12
95	Thermochemistry of Species Produced from Monomethylhydrazine in Propulsion and Space-Related Applications. *Journal of Propulsion and Power*, **2002**, 18, 1242-1253	1.8	12
94	Ag+-Induced Shape and Composition Evolution of Covellite CuS Nanoplatelets To Produce Plate□atellite and Biconcave□article Heterostructures. *Chemistry of Materials*, **2018**, 30, 8089-8098	9.6	12
93	Comparing Semiconductor Nanocrystal Toxicity in Pregnant Mice and Non-Human Primates. *Nanotheranostics*, **2019**, 3, 54-65	5.6	11
92	Synthesis of Zn-In-S Quantum Dots with Tunable Composition and Optical Properties. *ChemPhysChem*, **2016**, 17, 687-91	3.2	11
91	Energetically competitive growth patterns of silicon clusters: Quasi-one-dimensional clusters versus diamond-like clusters. *Physical Review B*, **2007**, 76,	3.3	11
90	A general approach to multicomponent metal-decorated crumpled reduced graphene oxide nanocomposites using a flame-based process. *Nanoscale*, **2019**, 11, 19571-19578	7.7	11
89	Nickel ferrite beehive-like nanosheets for binder-free and high-energy-storage supercapacitor electrodes. *Journal of Alloys and Compounds*, **2021**, 852, 156929	5.7	11
88	Optical Control of Nanoparticle Catalysis Influenced by Photoswitch Positioning in Hybrid Peptide Capping Ligands. *ACS Applied Materials & Interfaces*, **2018**, 10, 33640-33651	9.5	11

87	Can the Morphology of Biconcave Metal Sulfide Nanoplatelets Be Preserved during Cation Exchange?. *Chemistry of Materials*, **2019**, 31, 5706-5712	9.6	10
86	Computational Modeling of Silicon Nanoparticle Synthesis: II. A Two-Dimensional Bivariate Model for Silicon Nanoparticle Synthesis in a Laser-Driven Reactor Including Finite-Rate Coalescence. *Aerosol Science and Technology*, **2009**, 43, 554-569	3.4	10
85	Computational Modeling of Silicon Nanoparticle Synthesis: I. A General Two-Dimensional Model. *Aerosol Science and Technology*, **2009**, 43, 250-263	3.4	10
84	Electrostatically Sprayed Nanostructured Electrodes for Energy Conversion and Storage Devices. *Advanced Functional Materials*, **2021**, 31, 2008181	15.6	10
83	Production of pristine, sulfur-coated and silicon-alloyed germanium nanoparticles via laser pyrolysis. *Nanotechnology*, **2015**, 26, 305703	3.4	9
82	Galvanic replacement synthesis of multi-branched gold nanocrystals for photothermal cancer therapy. *Journal of Materials Chemistry B*, **2020**, 8, 5491-5499	7.3	9
81	Graphene□titania Hybrid Photoanodes by Supersonic Kinetic Spraying for Solar Water Splitting. *Journal of the American Ceramic Society*, **2014**, 97, 3660-3668	3.8	9
80	Preparation of luminescent silicon nanoparticles by photothermal aerosol synthesis followed by acid etching. *Phase Transitions*, **2004**, 77, 131-137	1.3	9
79	Bimetallic zeolitic imidazolate framework-derived substrate-free anode with superior cyclability for high-capacity lithium-ion batteries. *Journal of Materials Science and Technology*, **2021**, 67, 116-126	9.1	9
78	A cannabidiol-loaded Mg-gallate metal-organic framework-based potential therapeutic for glioblastomas. *Journal of Materials Chemistry B*, **2021**, 9, 2505-2514	7.3	9
77	Flexible metallized carbon nanofibers decorated with two-dimensional NiGa2S4 nanosheets as supercapacitor electrodes. *Chemical Engineering Journal*, **2021**, 420, 130497	14.7	9
76	Highly flexible transparent substrate-free photoanodes using ZnO nanowires on nickel microfibers. *Chemical Engineering Journal*, **2019**, 363, 13-22	14.7	8
75	Identifying Affinity Classes of Inorganic Materials Binding Sequences via a Graph-Based Model. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, **2015**, 12, 193-204	3	8
74	Graph Theory Model of Dry Reforming of Methane Using Rh(111). *Journal of Physical Chemistry Letters*, **2020**, 11, 4917-4922	6.4	8
73	Controlled Growth of a Hierarchical Nickel Carbide □Dandelion□Nanostructure. *Angewandte Chemie* , **2016**, 128, 8155-8158	3.6	8
72	Controlled Growth of a Hierarchical Nickel Carbide "Dandelion" Nanostructure. *Angewandte Chemie - International Edition*, **2016**, 55, 8023-6	16.4	8
71	Manganese-doped near-infrared emitting nanocrystals for in vivo biomedical imaging. *Optics Express*, **2016**, 24, 17553-61	3.3	8
70	Synthesis and Anisotropic Electrocatalytic Activity of Covellite Nanoplatelets with Fixed Thickness and Tunable Diameter. *ACS Applied Materials & Interfaces*, **2018**, 10, 42417-42426	9.5	8

69	Improved Performance of Silicon Nanowire-Based Solar Cells with Diallyl Disulfide Passivation. *Journal of Physical Chemistry C*, **2019**, 123, 4664-4673	3.8	7
68	Core-satellite ZnS-Ag nanoassemblies: Synthesis, structure, and optical properties. *Journal of Colloid and Interface Science*, **2016**, 463, 207-13	9.3	7
67	Thermal Decomposition of Dichlorosilane Investigated by Pulsed Laser Powered Homogeneous Pyrolysis. *Journal of the Electrochemical Society*, **1997**, 144, 4357-4361	3.9	7
66	Single-Step Flame Aerosol Synthesis of Active and Stable Nanocatalysts for the Dry Reforming of Methane. *ACS Applied Materials & Interfaces*, **2021**, 13, 17618-17628	9.5	7
65	Toward a modular multi-material nanoparticle synthesis and assembly strategy via bionanocombinatorics: bifunctional peptides for linking Au and Ag nanomaterials. *Physical Chemistry Chemical Physics*, **2016**, 18, 30845-30856	3.6	7
64	Nonstoichiometric copper chalcogenides for photo-activated alkyne/azide cycloaddition. *Physical Chemistry Chemical Physics*, **2017**, 19, 6964-6968	3.6	6
63	A general and rapid room-temperature synthesis approach for metal sulphide nanocrystals with tunable properties. *Nanoscale*, **2018**, 11, 136-144	7.7	6
62	Supersonically sprayed Zn2SnO4/SnO2/carbon nanotube films for high-efficiency water splitting photoanodes. *Journal of Alloys and Compounds*, **2020**, 828, 154374	5.7	6
61	Flame-based synthesis and in situ functionalization of palladium alloy nanoparticles. *AICHE Journal*, **2018**, 64, 3826-3834	3.6	6
60	Synthesis of iron-doped zinc oxide nanoparticles by simple heating: influence of precursor composition and temperature. *International Journal of Materials Engineering Innovation*, **2015**, 6, 18	0.9	6
59	Photothermal-reaction-assisted two-photon lithography of silver nanocrystals capped with thermally cleavable ligands. *Applied Physics Letters*, **2011**, 98, 133110	3.4	6
58	Enhanced oxygen detection using porous polymeric gratings with integrated recognition elements. *Sensors and Actuators B: Chemical*, **2008**, 130, 758-764	8.5	6
57	Encoding of polycyclic Si-containing molecules for determining species uniqueness in automated mechanism generation. *Journal of Chemical Information and Computer Sciences*, **2003**, 43, 735-42		6
56	Pulsed laser powered homogenous pyrolysis for reaction kinetics studies: Probe laser measurement of reaction time and temperature. *International Journal of Chemical Kinetics*, **1996**, 28, 817-828	1.4	6
55	Tuning Materials-Binding Peptide Sequences toward Gold- and Silver-Binding Selectivity with Bayesian Optimization. *ACS Nano*, **2021**,	16.7	6
54	Laser pyrolysis synthesis of zinc-containing nanomaterials using low-cost ultrasonic spray delivery of precursors. *Powder Technology*, **2020**, 376, 104-112	5.2	6
53	Supersonically sprayed rGO/ZIF8 on nickel nanocone substrate for highly stable supercapacitor electrodes. *Electrochimica Acta*, **2020**, 362, 137154	6.7	6
52	Fundamentals and recent applications of catalyst synthesis using flame aerosol technology. *Chemical Engineering Journal*, **2021**, 405, 126958	14.7	6

51	Facile one-pot synthesis of PdM (M = Ag, Ni, Cu, Y) nanowires for use in mixed matrix membranes for efficient hydrogen separation. *Journal of Materials Chemistry A*,	13	6
50	Reduced graphene oxide supersonically sprayed on wearable fabric and decorated with iron oxide for supercapacitor applications. *Journal of Materials Science and Technology*, **2021**, 82, 47-56	9.1	6
49	Review of recent progress in electrospinning-derived freestanding and binder-free electrodes for supercapacitors. *Coordination Chemistry Reviews*, **2022**, 460, 214466	23.2	6
48	Improved plasmon-assisted photoelectric conversion efficiency across entire ultraviolet□isible region based on antenna-on zinc oxide/silver three-dimensional nanostructured films. *Nano Research*, **2018**, 11, 520-529	10	5
47	Formation of IV□VI Alloy Nanocrystals for Application in Solution-Processed Optoelectronic Devices: The Case of Pb1□SnxS. *Chemistry of Materials*, **2013**, 25, 4409-4415	9.6	5
46	Palladium Nanosheet-Based Dual Gas Sensors for Sensitive Room-Temperature Hydrogen and Carbon Monoxide Detection.. *ACS Sensors*, **2022**,	9.2	5
45	Optical Control of Biomimetic Nanoparticle Catalysts Based upon the Metal Component. *Journal of Physical Chemistry C*, **2018**, 122, 28055-28064	3.8	5
44	Scalable Polymeric Few-Nanometer Organosilica Membranes with Hydrothermal Stability for Selective Hydrogen Separation. *ACS Nano*, **2021**,	16.7	5
43	ZnO decorated germanium nanoparticles as anode materials in Li-ion batteries. *Nanotechnology*, **2017**, 28, 095402	3.4	4
42	Identifying inorganic material affinity classes for peptide sequences based on context learning **2015**,		4
41	Chapter 5 Constructing Reaction Mechanisms. *Comprehensive Chemical Kinetics*, **2007**, 42, 185-242	0.7	4
40	An analysis of flow, temperature, and chemical composition distortion in gas sampling through an orifice during chemical vapor deposition. *Physics of Fluids*, **1999**, 11, 821-832	4.4	4
39	Pulsed laser powered homogeneous pyrolysis: A computational analysis. *International Journal of Chemical Kinetics*, **1994**, 26, 779-799	1.4	4
38	Microencapsulated UV filter@ZIF-8 based sunscreens for broad spectrum UV protection.. *RSC Advances*, **2020**, 10, 34254-34260	3.7	4
37	Reduced Graphene Oxide-Wrapped Palladium Nanowires Coated with a Layer of Zeolitic Imidazolate Framework-8 for Hydrogen Sensing. *ACS Applied Nano Materials*, **2021**, 4, 8081-8093	5.6	4
36	Amorphous carbon encapsulation of metal aerosol nanoparticles for improved collection and prevention of oxidation. *AICHE Journal*, **2013**, 59, 4116-4123	3.6	3
35	Assembling gas-phase reaction mechanisms for high temperature inorganic systems based on quantum chemistry calculations and reaction rate theories. *Journal of Physics and Chemistry of Solids*, **2005**, 66, 364-371	3.9	3
34	Magnetically Controllable Flowerlike, Polyhedral Ag-Cu-CoO for Surface-Enhanced Raman Scattering. *ACS Applied Materials & Interfaces*, **2021**, 13, 57814-57821	9.5	3

33	Formation and manipulation of ferrofluid droplets with magnetic fields in a microdevice: a numerical parametric study. *Soft Matter*, **2020**, 16, 9506-9518	3.6	3
32	Flame synthesis of mixed tin-silver-copper nanopowders and conductive coatings. *AICHE Journal*, **2016**, 62, 408-414	3.6	3
31	Synthesis and antibacterial activity of polymer-antibiotic conjugates incorporated into a resin-based dental adhesive. *Biomaterials Science*, **2021**, 9, 2043-2052	7.4	3
30	Binary and Ternary Colloidal Cu-Sn-Te Nanocrystals for Thermoelectric Thin Films. *Small*, **2021**, 17, e2006729	11	3
29	Cotton fabric decorated with manganese oxide nanorods as a supercapacitive flexible electrode for wearable electronics. *Applied Surface Science*, **2021**, 568, 150968	6.7	3
28	Ultrathin Palladium Nanowires for Fast and Hysteresis-Free H2 Sensing. *ACS Applied Nano Materials*,	5.6	3
27	. *IEEE Journal of Selected Topics in Quantum Electronics*, **2017**, 23, 1-6	3.8	2
26	Chapter 3:Modeling CVD Processes93-157		2
25	A general hierarchical flower-shaped cobalt oxide spinel template: facile method, morphology control, and enhanced saturation magnetization. *Journal of Materials Chemistry C*, **2020**, 8, 14056-14065	7.1	2
24	Flame aerosol synthesis of hollow alumina nanoshells for application in thermal insulation. *Chemical Engineering Journal*, **2022**, 428, 131273	14.7	2
23	Enhanced performance from a hybrid quenchometric deoxyribonucleic acid (DNA) silica xerogel gaseous oxygen sensing platform. *Applied Spectroscopy*, **2014**, 68, 1302-5	3.1	1
22	Biodegradable Luminescent Silicon Quantum Dots for Two Photon Imaging Applications. *Nature Precedings*, **2012**,		1
21	A Framework for Identifying Affinity Classes of Inorganic Materials Binding Peptide Sequences **2013**,		1
20	Nanostructured porous polymeric photonic bandgap structures for sensing **2007**,		1
19	Tunable porous photonic bandgap structures for chemical and biological sensing **2006**,		1
18	Ultrafast dynamics in nanostructured materials **2003**,		1
17	High-rate synthesis and characterization of brightly luminescent silicon nanoparticles with applications in hybrid materials for photonics and biophotonics **2003**,		1
16	Optical Properties of Polymer-Embedded Silicon Nanoparticles. *Materials Research Society Symposia Proceedings*, **2003**, 789, 168		1

15	Anion exchange induced formation of kesterite copper zinc tin sulphide-copper zinc tin selenide nanoheterostructures. *Nanoscale*, **2021**, 13, 4828-4834	7.7	1
14	Shape Control of Cu/ZnO Core–Shell Nanocubes and Related Structures for Localized Surface Plasmon Resonance. *ACS Applied Nano Materials*, **2021**, 4, 995-999	5.6	1
13	Recent advances of luminogens with aggregation-induced emission in multi-photon theranostics. *Applied Physics Reviews*, **2021**, 8, 041328	17.3	1
12	Pd Alloy Nanosheet Inks for Inkjet-Printable H 2 Sensors on Paper. *Advanced Materials Interfaces*,2200363	4.6	1
11	Biocompatibility, mechanical, and bonding properties of a dental adhesive modified with antibacterial monomer and cross-linker. *Clinical Oral Investigations*, **2021**, 25, 2877-2889	4.2	0
10	The effect of cathodic voltage-controlled electrical stimulation of titanium on the surrounding microenvironment pH: An experimental and computational study. *Electrochimica Acta*, **2021**, 393, 138853	6.7	0
9	On the Fokker–Planck approximation in the kinetic equation of multicomponent classical nucleation theory. *Physica A: Statistical Mechanics and Its Applications*, **2022**, 585, 126375	3.3	0
8	Surface-rare-earth-rich upconversion nanoparticles induced by heterovalent cation exchange with superior loading capacity. *Journal of Materials Science and Technology*, **2022**, 97, 223-228	9.1	0
7	Photoluminescent Silicon Nanocrystals with Mixed Surface Functionalization for Biophotonics. *Materials Research Society Symposia Proceedings*, **2006**, 958, 1		
6	Functionalized Photonic Crystal Sensor Elements based on Nanoporous Polymers. *Materials Research Society Symposia Proceedings*, **2007**, 1056, 1		
5	Silicon Nanoparticles for Biophotonics **2017**, 307-334		
4	Silicon Nanoparticles for Biophotonics **2017**, 307-334		
3	Functional Spinel Oxide Nanomaterials: Tailored Synthesis and Applications **2022**, 176-191		
2	Functional Spinel Oxide Nanomaterials: Tailored Synthesis and Applications **2022**, 137-175		
1	Mechanical characterization and adhesive properties of a dental adhesive modified with a polymer antibiotic conjugate.. *Journal of the Mechanical Behavior of Biomedical Materials*, **2022**, 129, 105153	4.1	