Lei Shao

List of Publications by Citations

75	4,498	31	67
papers	citations	h-index	g-index
80	5,251	13.3	5.83
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
75	Gold nanorods and their plasmonic properties. *Chemical Society Reviews*, **2013**, 42, 2679-724	58.5	1330
74	Understanding the photothermal conversion efficiency of gold nanocrystals. *Small*, **2010**, 6, 2272-80	11	395
73	Unraveling the evolution and nature of the plasmons in (Au core)-(Ag shell) nanorods. *Advanced Materials*, **2012**, 24, OP200-7	24	202
72	Angle- and energy-resolved plasmon coupling in gold nanorod dimers. *ACS Nano*, **2010**, 4, 3053-62	16.7	144
71	Growth of Monodisperse Gold Nanospheres with Diameters from 20 nm to 220 nm and Their Core/Satellite Nanostructures. *Advanced Optical Materials*, **2014**, 2, 65-73	8.1	125
70	Advanced Plasmonic Materials for Dynamic Color Display. *Advanced Materials*, **2018**, 30, e1704338	24	122
69	Observation of the Fano resonance in gold nanorods supported on high-dielectric-constant substrates. *ACS Nano*, **2011**, 5, 6754-63	16.7	117
68	Shape-Dependent Refractive Index Sensitivities of Gold Nanocrystals with the Same Plasmon Resonance Wavelength. *Journal of Physical Chemistry C*, **2009**, 113, 17691-17697	3.8	117
67	(Gold nanorod core)/(polyaniline shell) plasmonic switches with large plasmon shifts and modulation depths. *Advanced Materials*, **2014**, 26, 3282-9	24	107
66	Universal scaling and Fano resonance in the plasmon coupling between gold nanorods. *ACS Nano*, **2011**, 5, 5976-86	16.7	106
65	Photocurrent enhancement of HgTe quantum dot photodiodes by plasmonic gold nanorod structures. *ACS Nano*, **2014**, 8, 8208-16	16.7	97
64	Distinct plasmonic manifestation on gold nanorods induced by the spatial perturbation of small gold nanospheres. *Nano Letters*, **2012**, 12, 1424-30	11.5	95
63	Plasmonic Metasurfaces with Conjugated Polymers for Flexible Electronic Paper in Color. *Advanced Materials*, **2016**, 28, 9956-9960	24	94
62	Gold Nanorod Rotary Motors Driven by Resonant Light Scattering. *ACS Nano*, **2015**, 9, 12542-51	16.7	82
61	Plasmon-Controlled Fluorester Resonance Energy Transfer. *Journal of Physical Chemistry C*, **2012**, 116, 8287-8296	3.8	79
60	Plasmonic Molecular Resonance Coupling: Plasmonic Splitting versus Energy Transfer. *Journal of Physical Chemistry C*, **2012**, 116, 14088-14095	3.8	78
59	A gold nanocrystal/poly(dimethylsiloxane) composite for plasmonic heating on microfluidic chips. *Advanced Materials*, **2012**, 24, 94-8	24	73

58	Mass-Based Photothermal Comparison Among Gold Nanocrystals, PbS Nanocrystals, Organic Dyes, and Carbon Black. *Journal of Physical Chemistry C*, **2013**, 117, 8909-8915	3.8	73
57	Plasmonic properties of single multispiked gold nanostars: correlating modeling with experiments. *Langmuir*, **2012**, 28, 8979-84	4	68
56	Hot Electron Generation and Cathodoluminescence Nanoscopy of Chiral Split Ring Resonators. *Nano Letters*, **2016**, 16, 5183-90	11.5	66
55	Gold Nanobipyramids: An Emerging and Versatile Type of Plasmonic Nanoparticles. *Accounts of Chemical Research*, **2019**, 52, 2136-2146	24.3	65
54	Macroscale colloidal noble metal nanocrystal arrays and their refractive index-based sensing characteristics. *Small*, **2014**, 10, 802-11	11	57
53	Fano resonance in (gold core)-(dielectric shell) nanostructures without symmetry breaking. *Small*, **2012**, 8, 1503-9	11	57
52	Light-Driven Rotation of Plasmonic Nanomotors. *Advanced Functional Materials*, **2018**, 28, 1706272	15.6	53
51	Correlating the plasmonic and structural evolutions during the sulfidation of silver nanocubes. *ACS Nano*, **2013**, 7, 9354-65	16.7	52
50	Evaluating Conditions for Strong Coupling between Nanoparticle Plasmons and Organic Dyes Using Scattering and Absorption Spectroscopy. *Journal of Physical Chemistry C*, **2016**, 120, 20588-20596	3.8	47
49	Gold Nanorods: The Most Versatile Plasmonic Nanoparticles. *Chemical Reviews*, **2021**, 121, 13342-13453	68.1	42
48	Comparison of the plasmonic performances between lithographically fabricated and chemically grown gold nanorods. *Physical Chemistry Chemical Physics*, **2015**, 17, 10861-70	3.6	39
47	Nanoantenna-Sandwiched Graphene with Giant Spectral Tuning in the Visible-to-Near-Infrared Region. *Advanced Optical Materials*, **2014**, 2, 162-170	8.1	35
46	Metasurfaces and Colloidal Suspensions Composed of 3D Chiral Si Nanoresonators. *Advanced Materials*, **2017**, 29, 1701352	24	34
45	Room-temperature valleytronic transistor. *Nature Nanotechnology*, **2020**, 15, 743-749	28.7	33
44	Plasmon-modulated light scattering from gold nanocrystal-decorated hollow mesoporous silica microspheres. *ACS Nano*, **2010**, 4, 6565-72	16.7	31
43	Continuous-Gradient Plasmonic Nanostructures Fabricated by Evaporation on a Partially Exposed Rotating Substrate. *Advanced Materials*, **2016**, 28, 4658-64	24	28
42	Antibody-Antigen Interaction Dynamics Revealed by Analysis of Single-Molecule Equilibrium Fluctuations on Individual Plasmonic Nanoparticle Biosensors. *ACS Nano*, **2018**, 12, 9958-9965	16.7	27
41	Identifying the functional groups effect on passivating perovskite solar cells. *Science Bulletin*, **2020**, 65, 1726-1734	10.6	24

40	Probing Photothermal Effects on Optically Trapped Gold Nanorods by Simultaneous Plasmon Spectroscopy and Brownian Dynamics Analysis. *ACS Nano*, **2017**, 11, 10053-10061	16.7	24
39	Plasmonically enabled two-dimensional material-based optoelectronic devices. *Nanoscale*, **2020**, 12, 8095-8108	7.7	22
38	Brownian fluctuations of an optically rotated nanorod. *Optica*, **2017**, 4, 746	8.6	22
37	Plasmon Excited Ultrahot Carriers and Negative Differential Photoresponse in a Vertical Graphene van der Waals Heterostructure. *Nano Letters*, **2019**, 19, 3295-3304	11.5	19
36	Directional Control of Light with Nanoantennas. *Advanced Optical Materials*, **2021**, 9, 2001081	8.1	15
35	Switching plasmonic Fano resonance in gold nanosphere-nanoplate heterodimers. *Nanoscale*, **2019**, 11, 9641-9653	7.7	14
34	Molecular Tunnel Junction-Controlled High-Order Charge Transfer Plasmon and Fano Resonances. *ACS Nano*, **2018**, 12, 12541-12550	16.7	14
33	Anapole States and Toroidal Resonances Realized in Simple Gold Nanoplate-on-Mirror Structures. *Advanced Optical Materials*, **2020**, 8, 2001173	8.1	13
32	Fabrication of plasmonic nanostructures by hole-mask colloidal lithography: Recent development. *Applied Materials Today*, **2019**, 15, 6-17	6.6	13
31	Plasmonic Color Laser Printing inside Transparent Gold Nanodisk-Embedded Poly(dimethylsiloxane) Matrices. *Advanced Optical Materials*, **2020**, 8, 1901605	8.1	12
30	Photothermal DNA Release from Laser-Tweezed Individual Gold Nanomotors Driven by Photon Angular Momentum. *ACS Photonics*, **2018**, 5, 2168-2175	6.3	11
29	(Metal yolk)/(porous ceria shell) nanostructures for high-performance plasmonic photocatalysis under visible light. *Nano Research*, **2020**, 13, 1354-1362	10	11
28	Strengthening Fano resonance on gold nanoplates with gold nanospheres. *Nanoscale*, **2020**, 12, 1975-1984	7.7	10
27	Optically controlled stochastic jumps of individual gold nanorod rotary motors. *Physical Review B*, **2018**, 98,	3.3	9
26	Nanoparticle-loaded cylindrical micelles from nanopore extrusion of block copolymer spherical micelles. *Macromolecular Rapid Communications*, **2013**, 34, 1850-5	4.8	9
25	Enhancing the crystallinity and surface roughness of sputtered TiO2 thin film by ZnO underlayer. *Applied Surface Science*, **2009**, 255, 6781-6785	6.7	9
24	Morphology Engineering of Au/(PdAg alloy) Nanostructures for Enhanced Electrocatalytic Ethanol Oxidation. *Particle and Particle Systems Characterization*, **2018**, 35, 1800258	3.1	8
23	How to Utilize Excited Plasmon Energy Efficiently. *ACS Nano*, **2021**,	16.7	8

22	Chirality-selective transparency induced by lattice resonance in bilayer metasurfaces. *Photonics Research*, **2021**, 9, 484	6	7
21	Site-Selective Deposition of Metal-Organic Frameworks on Gold Nanobipyramids for Surface-Enhanced Raman Scattering. *Nano Letters*, **2021**, 21, 8205-8212	11.5	7
20	Heterostructures Built through Site-Selective Deposition on Anisotropic Plasmonic Metal Nanocrystals and Their Applications. *Small Structures*,2100101	8.7	5
19	Observation of chiral and slow plasmons in twisted bilayer graphene.. *Nature*, **2022**, 605, 63-68	50.4	5
18	Controlling the emission frequency of graphene nanoribbon emitters based on spatially excited topological boundary states. *Physical Chemistry Chemical Physics*, **2020**, 22, 8277-8283	3.6	4
17	(Gold nanorod core)/(poly(3,4-ethylene-dioxythiophene) shell) nanostructures and their monolayer arrays for plasmonic switching. *Nanoscale*, **2020**, 12, 20684-20692	7.7	4
16	Selective Deposition of Catalytic Metals on Plasmonic Au Nanocups for Room-Light-Active Photooxidation of -Phenylenediamine. *ACS Applied Materials & Interfaces*, **2021**,	9.5	4
15	Electronic Paper: Plasmonic Metasurfaces with Conjugated Polymers for Flexible Electronic Paper in Color (Adv. Mater. 45/2016). *Advanced Materials*, **2016**, 28, 10103-10103	24	4
14	A Data-Mining-Assisted Design of Structural Colors on Diamond Metasurfaces. *Advanced Photonics Research*,2100292	1.9	3
13	All-State Switching of the Mie Resonance of Conductive Polyaniline Nanospheres.. *Nano Letters*, **2022**,	11.5	3
12	Asymmetric Light Scattering on Heterodimers Made of Au Nanorods Vertically Standing on Au Nanodisks. *Advanced Optical Materials*, **2021**, 9, 2001595	8.1	3
11	Recent Progress in Optical-Resonance-Assisted Movement Control of Nanomotors. *Advanced Intelligent Systems*, **2020**, 2, 1900160	6	2
10	Electrophoretic Plasmonic Ink for Dynamic Color Display. *Advanced Optical Materials*, **2021**, 9, 2100091	8.1	2
9	Plasmon-Enhanced, Self-Traced Nanomotors on the Surface of Silicon. *Angewandte Chemie - International Edition*, **2021**, 60, 24958-24967	16.4	2
8	Phonon Thermal Transport in Silicene/Graphene Heterobilayer Nanostructures: Effect of Interlayer Interactions.. *ACS Omega*, **2022**, 7, 5844-5852	3.9	1
7	Functional Metal Nanocrystals for Biomedical Applications **2017**, 809-840		1
6	Metasurfaces: Continuous-Gradient Plasmonic Nanostructures Fabricated by Evaporation on a Partially Exposed Rotating Substrate (Adv. Mater. 23/2016). *Advanced Materials*, **2016**, 28, 4756	24	1
5	Facet- and Gas-Dependent Reshaping of Au Nanoplates by Plasma Treatment. *ACS Nano*, **2021**, 15, 9860-9870	13.7	0

4	Control of light-valley interactions in 2D transition metal dichalcogenides with nanophotonic structures. *Nanoscale*, **2021**, 13, 6357-6372	7.7	0
3	Plasmon-coupling-induced photon scattering torque. *Journal of the Optical Society of America B: Optical Physics*, **2022**, 39, 671	1.7	
2	Functional Metal Nanocrystals for Biomedical Applications **2015**, 1-32		
1	Synthesis of Colloidal Semiconductor Nanocrystals With Tunable Plasmonic Properties **2022**, 3-45		