Peng Jiang

List of Publications by Year
in descending order

69 papers	5,027 citations	136950 32 h-index	106344 65 g-index
69 all docs	69 docs citations	69 times ranked	5212 citing authors

#	Article	IF	Citations
1	Large-Scale Fabrication of Wafer-Size Colloidal Crystals, Macroporous Polymers and Nanocomposites by Spin-Coating. Journal of the American Chemical Society, 2004, 126, 13778-13786.	13.7	621
2	Bioinspired Selfâ€Cleaning Antireflection Coatings. Advanced Materials, 2008, 20, 3914-3918.	21.0	482
3	Broadband moth-eye antireflection coatings on silicon. Applied Physics Letters, 2008, 92, .	3.3	447
4	Preparation of Macroporous Metal Films from Colloidal Crystals. Journal of the American Chemical Society, 1999, 121, 7957-7958.	13.7	363
5	Thickness Dependence of the Optical Properties of Ordered Silica-Air and Air-Polymer Photonic Crystals. Physical Review Letters, 1999, 83, 300-303.	7.8	313
6	Reconfigurable photonic crystals enabled by pressure-responsive shape-memory polymers. Nature Communications, 2015, 6, 7416.	12.8	238
7	Wafer-Scale Periodic Nanohole Arrays Templated from Two-Dimensional Nonclose-Packed Colloidal Crystals. Journal of the American Chemical Society, 2005, 127, 3710-3711.	13.7	185
8	Two-dimensional nonclose-packed colloidal crystals formed by spincoating. Applied Physics Letters, 2006, 89, 011908.	3.3	166
9	Chromogenic Photonic Crystals Enabled by Novel Vaporâ€Responsive Shapeâ€Memory Polymers. Advanced Materials, 2015, 27, 3696-3704.	21.0	155
10	Templated fabrication of large area subwavelength antireflection gratings on silicon. Applied Physics Letters, 2007, 91, .	3.3	137
11	Optical properties of planar colloidal crystals: Dynamical diffraction and the scalar wave approximation. Journal of Chemical Physics, 1999, 111, 345-354.	3.0	125
12	Templated Fabrication of Periodic Metallic Nanopyramid Arrays. Chemistry of Materials, 2007, 19, 4551-4556.	6.7	92
13	Large-scale assembly of colloidal nanoparticles and fabrication of periodic subwavelength structures. Nanotechnology, 2008, 19, 475604.	2.6	92
14	Self-assembled self-cleaning broadband anti-reflection coatings. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 439, 84-100.	4.7	92
15	Self-assembled biomimetic antireflection coatings. Applied Physics Letters, 2007, 91, .	3.3	90
16	Biomimetic subwavelength antireflective gratings on GaAs. Optics Letters, 2008, 33, 2224.	3.3	79
17	Bioinspired broadband antireflection coatings on GaSb. Applied Physics Letters, 2008, 92, 141109.	3.3	77
18	Colloidal photonic superlattices. Physical Review B, 2001, 64, .	3.2	76

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19	Bioinspired Assembly of Colloidal Nanoplatelets by Electric Field. Chemistry of Materials, 2009, 21, 2039-2044.	6.7	76
20	Chromogenic Photonic Crystal Sensors Enabled by Multistimuliâ€Responsive Shape Memory Polymers. Small, 2018, 14, e1703515.	10.0	72
21	Direct Writing of Three-Dimensional Macroporous Photonic Crystals on Pressure-Responsive Shape Memory Polymers. ACS Applied Materials & Interfaces, 2015, 7, 23650-23659.	8.0	64
22	Self-Cleaning Diffractive Macroporous Films by Doctor Blade Coating. Langmuir, 2010, 26, 12598-12604.	3.5	63
23	Reconfigurable Photonic Crystals Enabled by Multistimuli-Responsive Shape Memory Polymers Possessing Room Temperature Shape Processability. ACS Applied Materials & Interfaces, 2017, 9, 5457-5467.	8.0	59
24	Templated biomimetic multifunctional coatings. Applied Physics Letters, 2008, 92, .	3.3	58
25	Superhydrophobic hierarchical arrays fabricated by a scalable colloidal lithography approach. Journal of Colloid and Interface Science, 2017, 487, 484-492.	9.4	52
26	Scalable bottom-up fabrication of colloidal photonic crystals and periodic plasmonic nanostructures. Journal of Materials Chemistry C, 2013, 1, 6031.	5.5	50
27	Optically Bistable Macroporous Photonic Crystals Enabled by Thermoresponsive Shape Memory Polymers. Advanced Optical Materials, 2015, 3, 1509-1516.	7.3	48
28	Self-assembled biomimetic superhydrophobic hierarchical arrays. Journal of Colloid and Interface Science, 2013, 405, 51-57.	9.4	44
29	Biomimetic broadband antireflection gratings on solar-grade multicrystalline silicon wafers. Applied Physics Letters, 2011, 99, 191103.	3.3	42
30	High surface plasmon resonance sensitivity enabled by optical disks. Optics Letters, 2012, 37, 3681.	3.3	36
31	Surface plasmon resonance and surface-enhanced Raman scattering sensing enabled by digital versatile discs. Applied Physics Letters, 2012, 100, .	3.3	35
32	Scalable fabrication of superhydrophobic hierarchical colloidal arrays. Journal of Colloid and Interface Science, 2010, 352, 558-565.	9.4	34
33	Programmable Macroporous Photonic Crystals Enabled by Swellingâ€Induced Allâ€Roomâ€Temperature Shape Memory Effects. Advanced Functional Materials, 2017, 27, 1703522.	14.9	31
34	Macroporous photonic crystal-based vapor detectors created by doctor blade coating. Applied Physics Letters, 2011, 98, .	3.3	27
35	Outstanding surface plasmon resonance performance enabled by templated oxide gratings. Physical Chemistry Chemical Physics, 2016, 18, 26078-26087.	2.8	26
36	Bioinspired assembly of surface-roughened nanoplatelets. Journal of Colloid and Interface Science, 2010, 344, 272-278.	9.4	23

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37	Generalized Fabrication of Monolayer Nonclose-Packed Colloidal Crystals with Tunable Lattice Spacing. Langmuir, 2013, 29, 7674-7681.	3.5	21
38	Self-assembled nanoparticle antiglare coatings. Optics Letters, 2012, 37, 4380.	3.3	20
39	Reconfigurable Anticounterfeiting Coatings Enabled by Macroporous Shape Memory Polymers. ACS Applied Polymer Materials, 2019, 1, 36-46.	4.4	20
40	Electrophoretic deposition of biomimetic nanocomposites. Electrochemistry Communications, 2009, 11, 14-17.	4.7	19
41	Electrophoretic co-deposition of biomimetic nanoplateletâ€“polyelectrolyte composites. Electrochemistry Communications, 2009, 11, 1635-1638.	4.7	18
42	Rapid electrostatics-assisted layer-by-layer assembly of near-infrared-active colloidal photonic crystals. Journal of Colloid and Interface Science, 2016, 482, 89-94.	9.4	18
43	Large-scale assembly of periodic nanostructures with metastable square lattices. Journal of Vacuum Science & Technology B, 2009, 27, 1043.	1.3	17
44	Self-assembled nanoparticle antireflection coatings on geometrically complex optical surfaces. Optics Letters, 2018, 43, 5238.	3.3	17
45	Unconventional Shape Memory Mechanisms of Nanoporous Polymer Photonic Crystals: Implications for Nano-Optical Coatings and Devices. ACS Applied Nano Materials, 2018, 1, 6081-6090.	5.0	16
46	Bio-Inspired Polymer Thin Films with Non-Close-Packed Nanopillars for Enhanced Bactericidal and Antireflective Properties. ACS Applied Polymer Materials, 2020, 2, 5808-5816.	4.4	16
47	Templated Fabrication of Periodic Binary Nanostructures. Journal of Physical Chemistry C, 2008, 112, 17586-17591.	3.1	15
48	Acclaimed defects. Nature Photonics, 2008, 2, 9-11.	31.4	14
49	Energy efficiency of smart windows made of photonic crystal. International Journal of Construction Management, 2017, 17, 100-112.	3.2	14
50	Evaporation-Induced Hierarchical Assembly of Rigid Silicon Nanopillars Fabricated by a Scalable Two-Level Colloidal Lithography Approach. ACS Applied Materials & Interfaces, 2019, 11, 40461-40469.	8.0	14
51	Controlling the Geometries of Si Nanowires through Tunable Nanosphere Lithography. ACS Applied Materials & Interfaces, 2017, 9, 7368-7375.	8.0	13
52	Templated Fabrication of Periodic Arrays of Metallic Attoliter Petri Dishes. Chemistry of Materials, 2010, 22, 1768-1775.	6.7	12
53	Biomimetic Antireflection Surfaces. , 2013, , 305-331.		12
54	Macroporous Superhydrophobic Coatings with Switchable Wettability Enabled by Smart Shape Memory Polymers. Advanced Materials Interfaces, 2021, 8, 2002111.	3.7	12

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55	The distributions of enhancement factors in closeâ€packed and noncloseâ€packed surfaceâ€enhanced Raman substrates. Journal of Raman Spectroscopy, 2012, 43, 389-395.	2.5	11
56	Surface plasmon resonance-enabled antibacterial digital versatile discs. Applied Physics Letters, 2012, 100, 063702.	3.3	10
57	Scalable parallel self-assembly of nanoparticle anti-reflection coatings. Thin Solid Films, 2017, 621, 156-164.	1.8	10
58	Bioinspired broadband midwavelength infrared antireflection coatings on silicon. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, 041807.	1.2	9
59	Sensitive surface plasmon resonance enabled by templated periodic arrays of gold nanodonuts. Nanotechnology, 2016, 27, 195601.	2.6	8
60	Elevated surface plasmon resonance sensing sensitivity of Au-covered silica sphere monolayer prepared by Langmuirâ€“Blodgett coating. Journal of Industrial and Engineering Chemistry, 2021, 99, 179-186.	5.8	5
61	Wafer-scale fabrication of periodic polymer attolitre microvial arrays. Chemical Communications, 2005, , 1699.	4.1	4
62	An enhanced finite difference time domain method for two dimensional Maxwell's equations. Numerical Methods for Partial Differential Equations, 2020, 36, 1129-1144.	3.6	4
63	Improved Surface Plasmon Resonance Sensing Sensitivity due to an Electrochemically Potential-Induced Gold Reconstruction. Journal of Electrochemical Science and Technology, 2021, 12, 167-172.	2.2	3
64	Switchable Friction Coefficient on Shape Memory Photonic Crystals. MRS Advances, 2020, 5, 757-763.	0.9	2
65	Monitoring electrochemical methanol oxidation and CO coverage using Pt deposited SPR sensor platform. International Journal of Energy Research, 2021, 45, 19535.	4.5	2
66	Photonic Crystals: Optically Bistable Macroporous Photonic Crystals Enabled by Thermoresponsive Shape Memory Polymers (Advanced Optical Materials 11/2015). Advanced Optical Materials, 2015, 3, 1508-1508.	7.3	1
67	BIOINSPIRED SELF-CLEANING ANTIREFLECTION COATINGS. World Scientific Series in Nanoscience and Nanotechnology, 2014, , 65-95.	0.1	0
68	Scalable Nanomanufacturing of Broadband Antireflection Coatings on Semiconductors. , 2016, , 319-353.		0
69	Colloidal assembly to antireflection coatings. , 2022, , .		0