

Zhongyu Cai

List of Publications by Year in descending order

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39
papers

2,219
citations

257450
24
h-index

315739
38
g-index

43
all docs

43
docs citations

43
times ranked

2368
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent Advances and Applications of Semiconductor Photocatalytic Technology. Applied Sciences (Switzerland), 2019, 9, 2489.	2.5	266
2	From colloidal particles to photonic crystals: advances in self-assembly and their emerging applications. Chemical Society Reviews, 2021, 50, 5898-5951.	38.1	232
3	Two-Dimensional Photonic Crystal Chemical and Biomolecular Sensors. Analytical Chemistry, 2015, 87, 5013-5025.	6.5	187
4	A Photonic Crystal Protein Hydrogel Sensor for <i>Candida albicans</i> . Angewandte Chemie - International Edition, 2015, 54, 13036-13040.	13.8	159
5	Controllable synthesis of mesoporous TiO_2 spheres for effective photocatalysis. Journal of Materials Chemistry, 2011, 21, 11430.	6.7	115
6	2D Photonic Crystal Protein Hydrogel Coulometer for Sensing Serum Albumin Ligand Binding. Analytical Chemistry, 2014, 86, 4840-4847.	6.5	101
7	Two-Dimensional Photonic Crystal Sensors for Visual Detection of Lectin Concanavalin A. Analytical Chemistry, 2014, 86, 9036-9041.	6.5	83
8	Responsive Photonic Crystal Carbohydrate Hydrogel Sensor Materials for Selective and Sensitive Lectin Protein Detection. ACS Sensors, 2017, 2, 1474-1481.	7.8	83
9	In situ gold-loaded titania photonic crystals with enhanced photocatalytic activity. Journal of Materials Chemistry A, 2014, 2, 545-553.	10.3	73
10	Poly(propylene fumarate)-based materials: Synthesis, functionalization, properties, device fabrication and biomedical applications. Biomaterials, 2019, 208, 45-71.	11.4	73
11	Fabrication of TiO_2 Binary Inverse Opals without Overlayers via the Sandwich-Vacuum Infiltration of Precursor. Langmuir, 2011, 27, 5157-5164.	3.5	72
12	Photonic crystal protein hydrogel sensor materials enabled by conformationally induced volume phase transition. Chemical Science, 2016, 7, 4557-4562.	7.4	72
13	Fabrication of Large Domain Crack-Free Colloidal Crystal Heterostructures with Superposition Bandgaps Using Hydrophobic Polystyrene Spheres. ACS Applied Materials & Interfaces, 2012, 4, 5562-5569.	8.0	68
14	Binary Colloidal Crystals Fabricated with a Horizontal Deposition Method. Langmuir, 2009, 25, 6753-6759.	3.5	63
15	Three-dimensional/two-dimensional photonic crystal hydrogels for biosensing. Journal of Materials Chemistry C, 2021, 9, 5840-5857.	5.5	55
16	In Situ "Doping" Inverse Silica Opals with Size-Controllable Gold Nanoparticles for Refractive Index Sensing. Journal of Physical Chemistry C, 2013, 117, 9440-9445.	3.1	48
17	Poly(propylene fumarate)/(calcium sulphate/ β -tricalcium phosphate) composites: Preparation, characterization and in vitro degradation. Acta Biomaterialia, 2009, 5, 628-635.	8.3	46
18	Polymer-infiltrated SiO_2 inverse opal photonic crystals for colorimetrically selective detection of xylene vapors. Sensors and Actuators B: Chemical, 2019, 291, 67-73.	7.8	42

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19	Simulation and fabrication of binary colloidal photonic crystals and their inverse structures. <i>Materials Letters</i> , 2009, 63, 2078-2081.	2.6	41
20	Highly ordered and gap controllable two-dimensional non-close-packed colloidal crystals and plasmonicâ€“photonic crystals with enhanced optical transmission. <i>Journal of Materials Chemistry</i> , 2012, 22, 24668.	6.7	39
21	An improved convective self-assembly method for the fabrication of binary colloidal crystals and inverse structures. <i>Journal of Colloid and Interface Science</i> , 2012, 380, 42-50.	9.4	34
22	Optically switchable photonic crystals based on inverse opals partially infiltrated by photoresponsive liquid crystals. <i>Journal of Materials Chemistry</i> , 2012, 22, 7609.	6.7	32
23	Solvent effect on the self-assembly of colloidal microspheres via a horizontal deposition method. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 402, 37-44.	4.7	31
24	Fabrication of Well-Ordered Binary Colloidal Crystals with Extended Size Ratios for Broadband Reflectance. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 10265-10273.	8.0	31
25	Self-Assembly of Crack-Free Silica Colloidal Crystals on Patterned Silicon Substrates. <i>Journal of Physical Chemistry C</i> , 2011, 115, 9970-9976.	3.1	22
26	Morphological and histological analysis on the in vivo degradation of poly (propylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Td (fun	2.8	21
27	Colorimetric two-dimensional photonic crystal biosensors for label-free detection of hydrogen peroxide. <i>Sensors and Actuators B: Chemical</i> , 2022, 354, 131236.	7.8	20
28	Robust Multiscale-Oriented Thermoresponsive Fibrous Hydrogels with Rapid Self-Recovery and Ultrafast Response Underwater. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 33152-33162.	8.0	19
29	Sandwich-structured Fe₂O₃@SiO₂@Au nanoparticles with magnetoplasmonic responses. <i>Journal of Materials Chemistry C</i> , 2015, 3, 11645-11652.	5.5	13
30	Graphene Quantum Dots Doped PVDF(TBT)/PVP(TBT) Fiber Film with Enhanced Photocatalytic Performance. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 596.	2.5	9
31	Structural Evolution and Formation Mechanism of the Soft Colloidal Arrays in the Core of PAAm Nanofibers by Electrospun Packing. <i>Langmuir</i> , 2017, 33, 10291-10301.	3.5	8
32	Ultrathin and easy-processing photonic crystal absorbing layers to enhance light absorption efficiency of solar cells. <i>APL Materials</i> , 2019, 7, .	5.1	8
33	Electrically switchable photonic crystals based on liquid-crystal-infiltrated TiO₂-inverse opals. <i>Optics Express</i> , 2019, 27, 15391.	3.4	8
34	Simulation and fabrication of THz waveguides with silicon wafer by using eye-shaped pillars as building blocks. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 102, 373-377.	2.3	5
35	Preparation and Performance Optimization of Two-Component Waterborne Polyurethane Locomotive Coating. <i>Coatings</i> , 2020, 10, 4.	2.6	3
36	A comprehensive study of the effects of different factors on anti-relaxation properties of octadecyltrichlorosilane-coated rubidium vapor cells. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 055001.	2.8	3

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37	Fabrication of Colloidal Crystals on Different Patterned Silicon Substrates by Self-Assembly Method. Advanced Materials Research, 2013, 850-851, 92-95.	0.3	0
38	Electrochemical Behavior of NH ₄ F-Pretreated Li _{1.25} Ni _{0.20} Fe _{0.13} Co _{0.33} Mn _{0.33} O ₂ Cathodes for Lithium-ion Batteries. Applied Sciences (Switzerland), 2020, 10, 1021.	2.5	0
39	Self-assembly method and the fabrication of 3-D photonic crystals. Scientia Sinica Chimica, 2010, 40, 1794-1806.	0.4	0