

Zhongyu Cai

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

41
papers

1,505
citations

23
h-index

38
g-index

43
ext. papers

1,844
ext. citations

7.6
avg, IF

4.77
L-index

#	Paper	IF	Citations
41	Two-dimensional photonic crystal chemical and biomolecular sensors. <i>Analytical Chemistry</i> , 2015 , 87, 5013-25	7.8	140
40	A Photonic Crystal Protein Hydrogel Sensor for <i>Candida albicans</i> . <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 13036-40	16.4	125
39	Recent Advances and Applications of Semiconductor Photocatalytic Technology. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 2489	2.6	121
38	Controllable synthesis of mesoporous TiO ₂ spheres for effective photocatalysis. <i>Journal of Materials Chemistry</i> , 2011 , 21, 11430		111
37	2D photonic crystal protein hydrogel coulometer for sensing serum albumin ligand binding. <i>Analytical Chemistry</i> , 2014 , 86, 4840-7	7.8	75
36	Two-dimensional photonic crystal sensors for visual detection of lectin concanavalin A. <i>Analytical Chemistry</i> , 2014 , 86, 9036-41	7.8	70
35	Fabrication of TiO ₂ binary inverse opals without overlayers via the sandwich-vacuum infiltration of precursor. <i>Langmuir</i> , 2011 , 27, 5157-64	4	69
34	In situ gold-loaded titania photonic crystals with enhanced photocatalytic activity. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 545-553	13	68
33	Binary colloidal crystals fabricated with a horizontal deposition method. <i>Langmuir</i> , 2009 , 25, 6753-9	4	57
32	Responsive Photonic Crystal Carbohydrate Hydrogel Sensor Materials for Selective and Sensitive Lectin Protein Detection. <i>ACS Sensors</i> , 2017 , 2, 1474-1481	9.2	55
31	Fabrication of large domain crack-free colloidal crystal heterostructures with superposition bandgaps using hydrophobic polystyrene spheres. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 5562-9	9.5	55
30	Photonic crystal protein hydrogel sensor materials enabled by conformationally induced volume phase transition. <i>Chemical Science</i> , 2016 , 7, 4557-4562	9.4	55
29	From colloidal particles to photonic crystals: advances in self-assembly and their emerging applications. <i>Chemical Society Reviews</i> , 2021 , 50, 5898-5951	58.5	51
28	In Situ Doping Inverse Silica Opals with Size-Controllable Gold Nanoparticles for Refractive Index Sensing. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 9440-9445	3.8	45
27	Poly(propylene fumarate)/(calcium sulphate/beta-tricalcium phosphate) composites: preparation, characterization and in vitro degradation. <i>Acta Biomaterialia</i> , 2009 , 5, 628-35	10.8	41
26	Highly ordered and gap controllable two-dimensional non-close-packed colloidal crystals and plasmonic photonic crystals with enhanced optical transmission. <i>Journal of Materials Chemistry</i> , 2012 , 22, 24668		37
25	Simulation and fabrication of binary colloidal photonic crystals and their inverse structures. <i>Materials Letters</i> , 2009 , 63, 2078-2081	3.3	37

24	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	9.3	33
23	Poly(propylene fumarate)-based materials: Synthesis, functionalization, properties, device fabrication and biomedical applications. <i>Biomaterials</i> , 2019 , 208, 45-71	15.6	30
22	Optically switchable photonic crystals based on inverse opals partially infiltrated by photoresponsive liquid crystals. <i>Journal of Materials Chemistry</i> , 2012 , 22, 7609		28
21	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	5.1	28
20	Fabrication of well-ordered binary colloidal crystals with extended size ratios for broadband reflectance. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 10265-73	9.5	26
19	Polymer-infiltrated SiO ₂ inverse opal photonic crystals for colorimetrically selective detection of xylene vapors. <i>Sensors and Actuators B: Chemical</i> , 2019 , 291, 67-73	8.5	24
18	Self-Assembly of Crack-Free Silica Colloidal Crystals on Patterned Silicon Substrates. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 9970-9976	3.8	21
17	Morphological and histological analysis on the in vivo degradation of poly (propylene fumarate)/(calcium sulfate/tricalcium phosphate). <i>Biomedical Microdevices</i> , 2011 , 13, 623-31	3.7	16
16	A Photonic Crystal Protein Hydrogel Sensor for <i>Candida albicans</i> . <i>Angewandte Chemie</i> , 2015 , 127, 13228-13232	15	
15	Three-dimensional/two-dimensional photonic crystal hydrogels for biosensing. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 5840-5857	7.1	14
14	Sandwich-structured Fe ₂ O ₃ @SiO ₂ @Au nanoparticles with magnetoplasmonic responses. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 11645-11652	7.1	12
13	Robust Multiscale-Oriented Thermoresponsive Fibrous Hydrogels with Rapid Self-Recovery and Ultrafast Response Underwater. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 33152-33162	9.5	8
12	Electrically switchable photonic crystals based on liquid-crystal-infiltrated TiO ₂ -inverse opals. <i>Optics Express</i> , 2019 , 27, 15391-15398	3.3	7
11	Graphene Quantum Dots Doped PVDF(TBT)/PVP(TBT) Fiber Film with Enhanced Photocatalytic Performance. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 596	2.6	6
10	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	4	6
9	Ultrathin and easy-processing photonic crystal absorbing layers to enhance light absorption efficiency of solar cells. <i>APL Materials</i> , 2019 , 7, 041113	5.7	5
8	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	2.6	5
7	Colloidal Photonic Crystals: Fabrication and Applications 2011 , 531-576		3

6	Colorimetric two-dimensional photonic crystal biosensors for label-free detection of hydrogen peroxide. <i>Sensors and Actuators B: Chemical</i> , 2022 , 354, 131236	8.5	2
5	Preparation and Performance Optimization of Two-Component Waterborne Polyurethane Locomotive Coating. <i>Coatings</i> , 2020 , 10, 4	2.9	2
4	Colloidal Photonic Crystal Sensors 2022 , 237-275		1
3	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, 055003		0
2	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. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 1021	2.6	
1	Fabrication of Colloidal Crystals on Different Patterned Silicon Substrates by Self-Assembly Method. <i>Advanced Materials Research</i> , 2013 , 850-851, 92-95	0.5	