Zhongyu Cai

List of Publications by Year in Descending Order

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	Colloidal Photonic Crystal Sensors **2022**, 237-275		1
40	Colorimetric two-dimensional photonic crystal biosensors for label-free detection of hydrogen peroxide. *Sensors and Actuators B: Chemical*, **2022**, 354, 131236	8.5	2
39	A comprehensive study of the effects of different factors on anti-relaxation properties of octadecyltrichlorosilane-coated rubidium vapor cells. *Journal Physics D: Applied Physics*, **2022**, 55, 055001	3	0
38	From colloidal particles to photonic crystals: advances in self-assembly and their emerging applications. *Chemical Society Reviews*, **2021**, 50, 5898-5951	58.5	51
37	Three-dimensional/two-dimensional photonic crystal hydrogels for biosensing. *Journal of Materials Chemistry C*, **2021**, 9, 5840-5857	7.1	14
36	Robust Multiscale-Oriented Thermoresponsive Fibrous Hydrogels with Rapid Self-Recovery and Ultrafast Response Underwater. *ACS Applied Materials & Interfaces*, **2020**, 12, 33152-33162	9.5	8
35	Electrochemical Behavior of NH4F-Pretreated Li1.25Ni0.20Fe0.13Co0.33Mn0.33O2 Cathodes for Lithium-ion Batteries. *Applied Sciences (Switzerland)*, **2020**, 10, 1021	2.6	
34	Graphene Quantum Dots Doped PVDF(TBT)/PVP(TBT) Fiber Film with Enhanced Photocatalytic Performance. *Applied Sciences (Switzerland)*, **2020**, 10, 596	2.6	6
33	Preparation and Performance Optimization of Two-Component Waterborne Polyurethane Locomotive Coating. *Coatings*, **2020**, 10, 4	2.9	2
32	Recent Advances and Applications of Semiconductor Photocatalytic Technology. *Applied Sciences (Switzerland)*, **2019**, 9, 2489	2.6	121
31	Ultrathin and easy-processing photonic crystal absorbing layers to enhance light absorption efficiency of solar cells. *APL Materials*, **2019**, 7, 041113	5.7	5
30	Poly(propylene fumarate)-based materials: Synthesis, functionalization, properties, device fabrication and biomedical applications. *Biomaterials*, **2019**, 208, 45-71	15.6	30
29	Polymer-infiltrated SiO2 inverse opal photonic crystals for colorimetrically selective detection of xylene vapors. *Sensors and Actuators B: Chemical*, **2019**, 291, 67-73	8.5	24
28	Electrically switchable photonic crystals based on liquid-crystal-infiltrated TiO-inverse opals. *Optics Express*, **2019**, 27, 15391-15398	3.3	7
27	Responsive Photonic Crystal Carbohydrate Hydrogel Sensor Materials for Selective and Sensitive Lectin Protein Detection. *ACS Sensors*, **2017**, 2, 1474-1481	9.2	55
26	Structural Evolution and Formation Mechanism of the Soft Colloidal Arrays in the Core of PAAm Nanofibers by Electrospun Packing. *Langmuir*, **2017**, 33, 10291-10301	4	6
25	Photonic crystal protein hydrogel sensor materials enabled by conformationally induced volume phase transition. *Chemical Science*, **2016**, 7, 4557-4562	9.4	55

24	Two-dimensional photonic crystal chemical and biomolecular sensors. *Analytical Chemistry*, **2015**, 87, 5013-25	7.8	140
23	Sandwich-structured Fe2O3@SiO2@Au nanoparticles with magnetoplasmonic responses. *Journal of Materials Chemistry C*, **2015**, 3, 11645-11652	7.1	12
22	A Photonic Crystal Protein Hydrogel Sensor for Candida albicans. *Angewandte Chemie - International Edition*, **2015**, 54, 13036-40	16.4	125
21	A Photonic Crystal Protein Hydrogel Sensor for Candida albicans. *Angewandte Chemie*, **2015**, 127, 13228-13232	3.8	15
20	2D photonic crystal protein hydrogel coulometer for sensing serum albumin ligand binding. *Analytical Chemistry*, **2014**, 86, 4840-7	7.8	75
19	In situ gold-loaded titania photonic crystals with enhanced photocatalytic activity. *Journal of Materials Chemistry A*, **2014**, 2, 545-553	13	68
18	Two-dimensional photonic crystal sensors for visual detection of lectin concanavalin A. *Analytical Chemistry*, **2014**, 86, 9036-41	7.8	70
17	Fabrication of well-ordered binary colloidal crystals with extended size ratios for broadband reflectance. *ACS Applied Materials & Interfaces*, **2014**, 6, 10265-73	9.5	26
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	3.8	45
15	Fabrication of Colloidal Crystals on Different Patterned Silicon Substrates by Self-Assembly Method. *Advanced Materials Research*, **2013**, 850-851, 92-95	0.5	
14	An improved convective self-assembly method for the fabrication of binary colloidal crystals and inverse structures. *Journal of Colloid and Interface Science*, **2012**, 380, 42-50	9.3	33
13	Fabrication of large domain crack-free colloidal crystal heterostructures with superposition bandgaps using hydrophobic polystyrene spheres. *ACS Applied Materials & Interfaces*, **2012**, 4, 5562-9	8.5	55
12	Highly ordered and gap controllable two-dimensional non-close-packed colloidal crystals and plasmonic photonic crystals with enhanced optical transmission. *Journal of Materials Chemistry*, **2012**, 22, 24668		37
11	Optically switchable photonic crystals based on inverse opals partially infiltrated by photoresponsive liquid crystals. *Journal of Materials Chemistry*, **2012**, 22, 7609		28
10	Solvent effect on the self-assembly of colloidal microspheres via a horizontal deposition method. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2012**, 402, 37-44	5.1	28
9	Colloidal Photonic Crystals: Fabrication and Applications **2011**, 531-576		3
8	Controllable synthesis of mesoporous F TiO2 spheres for effective photocatalysis. *Journal of Materials Chemistry*, **2011**, 21, 11430		111
7	Self-Assembly of Crack-Free Silica Colloidal Crystals on Patterned Silicon Substrates. *Journal of Physical Chemistry C*, **2011**, 115, 9970-9976	3.8	21

6	Morphological and histological analysis on the in vivo degradation of poly (propylene fumarate)/(calcium sulfate/Ŧricalcium phosphate). *Biomedical Microdevices*, **2011**, 13, 623-31	3.7	16
5	Simulation and fabrication of THz waveguides with silicon wafer by using eye-shaped pillars as building blocks. *Applied Physics A: Materials Science and Processing*, **2011**, 102, 373-377	2.6	5
4	Fabrication of TiO2 binary inverse opals without overlayers via the sandwich-vacuum infiltration of precursor. *Langmuir*, **2011**, 27, 5157-64	4	69
3	Simulation and fabrication of binary colloidal photonic crystals and their inverse structures. *Materials Letters*, **2009**, 63, 2078-2081	3.3	37
2	Poly(propylene fumarate)/(calcium sulphate/beta-tricalcium phosphate) composites: preparation, characterization and in vitro degradation. *Acta Biomaterialia*, **2009**, 5, 628-35	10.8	41
1	Binary colloidal crystals fabricated with a horizontal deposition method. *Langmuir*, **2009**, 25, 6753-9	4	57