Hongyou Fan

List of Publications by Year in Descending Order

66 papers	4,431 citations	34 h-index	66 g-index
67 ext. papers	4,881 ext. citations	11.8 avg, IF	5.51 L-index

#	Paper	IF	Citations
66	Pressure Induced Assembly and Coalescence of Lead Chalcogenide Nanocrystals. *Journal of the American Chemical Society*, **2021**, 143, 2688-2693	16.4	5
65	X-Ray Diffraction and Electron Microscopy Studies of the Size Effects on Pressure-Induced Phase Transitions in CdS Nanocrystals. *MRS Advances*, **2020**, 5, 2447-2455	0.7	1
64	Shape Dependence of Pressure-Induced Phase Transition in CdS Semiconductor Nanocrystals. *Journal of the American Chemical Society*, **2020**, 142, 6505-6510	16.4	20
63	Self-assembly of functional nanoscale materials. *MRS Bulletin*, **2020**, 45, 135-141	3.2	2
62	Porphyrin-based photocatalysts for hydrogen production. *MRS Bulletin*, **2020**, 45, 49-56	3.2	19
61	Surfactant-Assisted Cooperative Self-Assembly of Nanoparticles into Active Nanostructures. *IScience*, **2019**, 11, 272-293	6.1	45
60	Pressure Induced Nanoparticle Phase Behavior, Property, and Applications. *Chemical Reviews*, **2019**, 119, 7673-7717	68.1	98
59	Fabrication of Nickel Oxide Nanopillar Arrays on Flexible Electrodes for Highly Efficient Perovskite Solar Cells. *Nano Letters*, **2019**, 19, 3676-3683	11.5	33
58	MoS-OH Bilayer-Mediated Growth of Inch-Sized Monolayer MoS on Arbitrary Substrates. *Journal of the American Chemical Society*, **2019**, 141, 5392-5401	16.4	56
57	Oriented Gold Nanorod Arrays: Self-Assembly and Optoelectronic Applications. *Angewandte Chemie*, **2019**, 131, 12082-12092	3.6	8
56	Oriented Gold Nanorod Arrays: Self-Assembly and Optoelectronic Applications. *Angewandte Chemie - International Edition*, **2019**, 58, 11956-11966	16.4	52
55	Microemulsion-Assisted Self-Assembly and Synthesis of Size-Controlled Porphyrin Nanocrystals with Enhanced Photocatalytic Hydrogen Evolution. *Nano Letters*, **2019**, 19, 2614-2619	11.5	59
54	Cooperative self-assembly of porphyrins and derivatives. *MRS Bulletin*, **2019**, 44, 178-182	3.2	9
53	Identification of Porphyrin-Silica Composite Nanoparticles using Atmospheric Solids Analysis Probe Mass Spectrometry. *MRS Advances*, **2019**, 4, 2079-2086	0.7	
52	Synthesis of Self-Assembled Porphyrin Nanoparticle Photosensitizers. *ACS Nano*, **2018**, 12, 3796-3803	16.7	152
51	Surfactant-Assisted Synthesis of Tetragonal Porphyrin Microparticles. *MRS Advances*, **2018**, 3, 2757-2762	0.7	1
50	Self-Assembled One-Dimensional Porphyrin Nanostructures with Enhanced Photocatalytic Hydrogen Generation. *Nano Letters*, **2018**, 18, 560-566	11.5	129

49	Formation of self-assembled gold nanoparticle supercrystals with facet-dependent surface plasmonic coupling. *Nature Communications*, **2018**, 9, 2365	17.4	41
48	Controlled Self-Assembly and Tuning of Large PbS Nanoparticle Supercrystals. *Chemistry of Materials*, **2018**, 30, 6788-6793	9.6	31
47	Modeling pressure-driven assembly of polymer coated nanoparticles **2018**,		2
46	Fabrication of Large-Area Arrays of Vertically Aligned Gold Nanorods. *Nano Letters*, **2018**, 18, 4467-4472	11.5	55
45	Pressure compression of CdSe nanoparticles into luminescent nanowires. *Science Advances*, **2017**, 3, e1602316	12.5	50
44	Superfast assembly and synthesis of gold nanostructures using nanosecond low-temperature compression via magnetic pulsed power. *Nature Communications*, **2017**, 8, 14778	17.4	25
43	pH-Dependent Assembly of Porphyrin-Silica Nanocomposites and Their Application in Targeted Photodynamic Therapy. *Nano Letters*, **2017**, 17, 6916-6921	11.5	83
42	Regulating Multiple Variables To Understand the Nucleation and Growth and Transformation of PbS Nanocrystal Superlattices. *Journal of the American Chemical Society*, **2017**, 139, 14476-14482	16.4	39
41	Morphology-Controlled Synthesis and Metalation of Porphyrin Nanoparticles with Enhanced Photocatalytic Performance. *Nano Letters*, **2016**, 16, 6523-6528	11.5	112
40	Pressure-Tuned Structure and Property of Optically Active Nanocrystals. *Advanced Materials*, **2016**, 28, 1989-93	24	20
39	Nanocrystals: Pressure-Tuned Structure and Property of Optically Active Nanocrystals (Adv. Mater. 10/2016). *Advanced Materials*, **2016**, 28, 1988-1988	24	
38	Nanomaterials under stress: A new opportunity for nanomaterials synthesis and engineering. *MRS Bulletin*, **2015**, 40, 961-970	3.2	9
37	Preparation of highly luminescent and color tunable carbon nanodots under visible light excitation for in vitro and in vivo bio-imaging. *Journal of Materials Research*, **2015**, 30, 3386-3393	2.5	15
36	Poly(N-isopropylacrylamide) surfactant-functionalized responsive silver nanoparticles and superlattices. *ACS Nano*, **2014**, 8, 4799-804	16.7	41
35	Instant gelation synthesis of 3D porous MoS2@C nanocomposites for lithium ion batteries. *Nanoscale*, **2014**, 6, 3664-9	7.7	56
34	Morphology-controlled self-assembly and synthesis of photocatalytic nanocrystals. *Nano Letters*, **2014**, 14, 7175-9	11.5	98
33	Deviatoric stress-driven fusion of nanoparticle superlattices. *Nano Letters*, **2014**, 14, 4951-8	11.5	31
32	Interfacial self-assembly driven formation of hierarchically structured nanocrystals with photocatalytic activity. *ACS Nano*, **2014**, 8, 827-33	16.7	107

31	Stress-induced nanoparticle crystallization. *Journal of the American Chemical Society*, **2014**, 136, 7634-6	16.4	52
30	Formation mechanism and optimization of highly luminescent N-doped graphene quantum dots. *Scientific Reports*, **2014**, 4, 5294	4.9	639
29	Stress-induced phase transformation and optical coupling of silver nanoparticle superlattices into mechanically stable nanowires. *Nature Communications*, **2014**, 5, 4179	17.4	90
28	Phase control of hierarchically structured mesoporous anatase TiO2 microspheres covered with {001} facets. *Journal of Materials Chemistry*, **2012**, 22, 21965		63
27	Monodisperse Fluorescent Organic/Inorganic Composite Nanoparticles: Tuning Full Color Spectrum. *Chemistry of Materials*, **2012**, 24, 3415-3419	9.6	49
26	Smart polydiacetylene nanowire paper with tunable colorimetric response. *Journal of Materials Chemistry*, **2012**, 22, 14839		22
25	Deviatoric stress driven formation of large single-crystal PbS nanosheet from nanoparticles and in situ monitoring of oriented attachment. *Journal of the American Chemical Society*, **2011**, 133, 14484-7	16.4	144
24	Porous one-dimensional nanostructures through confined cooperative self-assembly. *Nano Letters*, **2011**, 11, 5196-200	11.5	67
23	Templated photocatalytic synthesis of well-defined platinum hollow nanostructures with enhanced catalytic performance for methanol oxidation. *Nano Letters*, **2011**, 11, 3759-62	11.5	107
22	Template directed assembly of dynamic micellar nanoparticles. *Soft Matter*, **2011**, 7, 10252	3.6	6
21	Nanostructured gold architectures formed through high pressure-driven sintering of spherical nanoparticle arrays. *Journal of the American Chemical Society*, **2010**, 132, 12826-8	16.4	84
20	Monodisperse porous nanodiscs with fluorescent and crystalline wall structure. *Chemical Communications*, **2010**, 46, 4941-3	5.8	28
19	Pressure-Driven Assembly of Spherical Nanoparticles and Formation of 1D-Nanostructure Arrays. *Angewandte Chemie*, **2010**, 122, 8609-8612	3.6	12
18	Pressure-driven assembly of spherical nanoparticles and formation of 1D-nanostructure arrays. *Angewandte Chemie - International Edition*, **2010**, 49, 8431-4	16.4	68
17	Hydrogen-bonding-assisted self-assembly: monodisperse hollow nanoparticles made easy. *Journal of the American Chemical Society*, **2009**, 131, 13594-5	16.4	49
16	Nanocrystal-micelle: synthesis, self-assembly and application. *Chemical Communications*, **2008**, 1383-94	5.8	53
15	Dynamic investigation of gold nanocrystal assembly using in situ grazing-incidence small-angle X-ray scattering. *Langmuir*, **2008**, 24, 10575-8	4	34
14	Convective self-assembly to deposit supported ultra-thin mesoporous silica films. *Journal of Materials Chemistry*, **2006**, 16, 4637		25

13	Ordered nanocrystal/silica particles self-assembled from nanocrystal micelles and silicate. *Chemical Communications*, **2006**, 2323-5	5.8	29
12	Hierarchically Organized Nanoparticle Mesostructure Arrays Formed through Hydrothermal Self-Assembly. *Chemistry of Materials*, **2006**, 18, 3034-3038	9.6	33
11	Surfactant-assisted synthesis of water-soluble and biocompatible semiconductor quantum dot micelles. *Nano Letters*, **2005**, 5, 645-8	11.5	210
10	Synthesis of organo-silane functionalized nanocrystal micelles and their self-assembly. *Journal of the American Chemical Society*, **2005**, 127, 13746-7	16.4	52
9	Optical and electrical properties of self-assembled, ordered gold nanocrystal/silica thin films prepared by sol-gel processing. *Thin Solid Films*, **2005**, 491, 38-42	2.2	19
8	Surface Plasmon Excitation in Three-dimensional, Ordered, Gold Nanocrystal Arrays Using a Prism Coupler. *Materials Research Society Symposia Proceedings*, **2005**, 900, 1		
7	Electrical and Optical Properties of Self-Assembled, Ordered Gold Nanocrystal/Silica Thin Films Prepared by Sol-Gel Processing. *Materials Research Society Symposia Proceedings*, **2005**, 872, 1		0
6	Self-assembly of ordered, robust, three-dimensional gold nanocrystal/silica arrays. *Science*, **2004**, 304, 567-71	33.3	433
5	Evaporation-Induced Self-Assembly of Hybrid Bridged Silsesquioxane Film and Particulate Mesophases with Integral Organic Functionality. *Journal of the American Chemical Society*, **2000**, 122, 5258-5261	16.4	427
4	Adsorption of Surface-Modified Colloidal Gold Particles onto Self-Assembled Monolayers: A Model System for the Study of Interactions of Colloidal Particles and Organic Surfaces. *Langmuir*, **1997**, 13, 119-121	4	33
3	Stepwise assembly in three dimensions: Preparation and characterization of layered gold nanoparticles in porous silica matrices. *Advanced Materials*, **1997**, 9, 728-731	24	24
2	Electrochemical Patterning of Self-Assembled Monolayers onto Microscopic Arrays of Gold Electrodes Fabricated by Laser Ablation. *Langmuir*, **1996**, 12, 5515-5518	4	75
1	High pressure induced atomic and mesoscale phase behaviors of one-dimensional TiO2 anatase nanocrystals. *MRS Bulletin*,1	3.2	0