Hongyou Fan

List of Publications by Year
in descending order

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Version: 2024-02-01

67 papers	5,350 citations	94433 37 h-index	110387 64 g-index
68 all docs	68 docs citations	68 times ranked	7502 citing authors

#	Article	IF	Citations
1	High pressure induced atomic and mesoscale phase behaviors of one-dimensional TiO2 anatase nanocrystals. MRS Bulletin, 2022, 47, 455-460.	3.5	6
2	Pressure Induced Assembly and Coalescence of Lead Chalcogenide Nanocrystals. Journal of the American Chemical Society, 2021, 143, 2688-2693.	13.7	11
3	Porphyrin-based photocatalysts for hydrogen production. MRS Bulletin, 2020, 45, 49-56.	3.5	40
4	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.	0.9	3
5	Shape Dependence of Pressure-Induced Phase Transition in CdS Semiconductor Nanocrystals. Journal of the American Chemical Society, 2020, 142, 6505-6510.	13.7	36
6	Self-assembly of functional nanoscale materials. MRS Bulletin, 2020, 45, 135-141.	3.5	4
7	Identification of Porphyrin-Silica Composite Nanoparticles using Atmospheric Solids Analysis Probe Mass Spectrometry. MRS Advances, 2019, 4, 2079-2086.	0.9	0
8	Surfactant-Assisted Cooperative Self-Assembly of Nanoparticles into Active Nanostructures. IScience, 2019, 11, 272-293.	4.1	66
9	Pressure Induced Nanoparticle Phase Behavior, Property, and Applications. Chemical Reviews, 2019, 119, 7673-7717.	47.7	164
10	Fabrication of Nickel Oxide Nanopillar Arrays on Flexible Electrodes for Highly Efficient Perovskite Solar Cells. Nano Letters, 2019, 19, 3676-3683.	9.1	41
11	MoS₂â€“OH Bilayer-Mediated Growth of Inch-Sized Monolayer MoS₂ on Arbitrary Substrates. Journal of the American Chemical Society, 2019, 141, 5392-5401.	13.7	87
12	Oriented Gold Nanorod Arrays: Selfâ€Assembly and Optoelectronic Applications. Angewandte Chemie, 2019, 131, 12082-12092.	2.0	11
13	Oriented Gold Nanorod Arrays: Selfâ€Assembly and Optoelectronic Applications. Angewandte Chemie - International Edition, 2019, 58, 11956-11966.	13.8	94
14	Microemulsion-Assisted Self-Assembly and Synthesis of Size-Controlled Porphyrin Nanocrystals with Enhanced Photocatalytic Hydrogen Evolution. Nano Letters, 2019, 19, 2614-2619.	9.1	85
15	Cooperative self-assembly of porphyrins and derivatives. MRS Bulletin, 2019, 44, 178-182.	3.5	12
16	Synthesis of Self-Assembled Porphyrin Nanoparticle Photosensitizers. ACS Nano, 2018, 12, 3796-3803.	14.6	221
17	Surfactant-Assisted Synthesis of Tetragonal Porphyrin Microparticles. MRS Advances, 2018, 3, 2757-2762.	0.9	2
18	Self-Assembled One-Dimensional Porphyrin Nanostructures with Enhanced Photocatalytic Hydrogen Generation. Nano Letters, 2018, 18, 560-566.	9.1	169

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19	Controlled Self-Assembly and Tuning of Large PbS Nanoparticle Supercrystals. Chemistry of Materials, 2018, 30, 6788-6793.	6.7	44
20	Modeling pressure-driven assembly of polymer coated nanoparticles. AIP Conference Proceedings, 2018, , .	0.4	4
21	Fabrication of Large-Area Arrays of Vertically Aligned Gold Nanorods. Nano Letters, 2018, 18, 4467-4472.	9.1	82
22	Formation of self-assembled gold nanoparticle supercrystals with facet-dependent surface plasmonic coupling. Nature Communications, 2018, 9, 2365.	12.8	61
23	Pressure compression of CdSe nanoparticles into luminescent nanowires. Science Advances, 2017, 3, e1602916.	10.3	66
24	Superfast assembly and synthesis of gold nanostructures using nanosecond low-temperature compression via magnetic pulsed power. Nature Communications, 2017, 8, 14778.	12.8	31
25	pH-Dependent Assembly of Porphyrinâ€“Silica Nanocomposites and Their Application in Targeted Photodynamic Therapy. Nano Letters, 2017, 17, 6916-6921.	9.1	108
26	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.	13.7	42
27	Nanocrystals: Pressureâ€Tuned Structure and Property of Optically Active Nanocrystals (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Ove	21.0	0
28	Morphology-Controlled Synthesis and Metalation of Porphyrin Nanoparticles with Enhanced Photocatalytic Performance. Nano Letters, 2016, 16, 6523-6528.	9.1	138
29	Pressureâ€Tuned Structure and Property of Optically Active Nanocrystals. Advanced Materials, 2016, 28, 1989-1993.	21.0	22
30	Nanomaterials under stress: A new opportunity for nanomaterials synthesis and engineering. MRS Bulletin, 2015, 40, 961-970.	3.5	9
31	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.	2.6	20
32	Poly(N-isopropylacrylamide) Surfactant-Functionalized Responsive Silver Nanoparticles and Superlattices. ACS Nano, 2014, 8, 4799-4804.	14.6	44
33	Instant gelation synthesis of 3D porous MoS2@C nanocomposites for lithium ion batteries. Nanoscale, 2014, 6, 3664-3669.	5.6	58
34	Morphology-Controlled Self-Assembly and Synthesis of Photocatalytic Nanocrystals. Nano Letters, 2014, 14, 7175-7179.	9.1	119
35	Deviatoric Stress-Driven Fusion of Nanoparticle Superlattices. Nano Letters, 2014, 14, 4951-4958.	9.1	37
36	Interfacial Self-Assembly Driven Formation of Hierarchically Structured Nanocrystals with Photocatalytic Activity. ACS Nano, 2014, 8, 827-833.	14.6	120

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37	Stress-Induced Nanoparticle Crystallization. Journal of the American Chemical Society, 2014, 136, 7634-7636.	13.7	52
38	Formation mechanism and optimization of highly luminescent N-doped graphene quantum dots. Scientific Reports, 2014, 4, 5294.	3.3	759
39	Stress-induced phase transformation and optical coupling of silver nanoparticle superlattices into mechanically stable nanowires. Nature Communications, 2014, 5, 4179.	12.8	114
40	Phase control of hierarchically structured mesoporous anatase TiO2 microspheres covered with {001} facets. Journal of Materials Chemistry, 2012, 22, 21965.	6.7	66
41	Monodisperse Fluorescent Organic/Inorganic Composite Nanoparticles: Tuning Full Color Spectrum. Chemistry of Materials, 2012, 24, 3415-3419.	6.7	52
42	Smart polydiacetylene nanowire paper with tunable colorimetric response. Journal of Materials Chemistry, 2012, 22, 14839.	6.7	23
43	Templated Photocatalytic Synthesis of Well-Defined Platinum Hollow Nanostructures with Enhanced Catalytic Performance for Methanol Oxidation. Nano Letters, 2011, 11, 3759-3762.	9.1	119
44	Template directed assembly of dynamic micellar nanoparticles. Soft Matter, 2011, 7, 10252.	2.7	7
45	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, 14484-14487.	13.7	168
46	Porous One-Dimensional Nanostructures through Confined Cooperative Self-Assembly. Nano Letters, 2011, 11, 5196-5200.	9.1	76
47	Pressureâ€Driven Assembly of Spherical Nanoparticles and Formation of 1Dâ€Nanostructure Arrays. Angewandte Chemie - International Edition, 2010, 49, 8431-8434.	13.8	78
48	Nanostructured Gold Architectures Formed through High Pressure-Driven Sintering of Spherical Nanoparticle Arrays. Journal of the American Chemical Society, 2010, 132, 12826-12828.	13.7	93
49	Monodisperse porous nanodiscs with fluorescent and crystalline wall structure. Chemical Communications, 2010, 46, 4941.	4.1	31
50	Hydrogen-Bonding-Assisted Self-Assembly: Monodisperse Hollow Nanoparticles Made Easy. Journal of the American Chemical Society, 2009, 131, 13594-13595.	13.7	50
51	Nanocrystal-micelle: synthesis, self-assembly and application. Chemical Communications, 2008, , 1383-1394.	4.1	57
52	Dynamic Investigation of Gold Nanocrystal Assembly Using In Situ Grazing-Incidence Small-Angle X-ray Scattering. Langmuir, 2008, 24, 10575-10578.	3.5	34
53	Convective self-assembly to deposit supported ultra-thin mesoporous silica films. Journal of Materials Chemistry, 2006, 16, 4637.	6.7	27
54	Ordered nanocrystal/silica particles self-assembled from nanocrystal micelles and silicate. Chemical Communications, 2006, , 2323.	4.1	31

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55	Hierarchically Organized Nanoparticle Mesostructure Arrays Formed through Hydrothermal Self-Assembly. Chemistry of Materials, 2006, 18, 3034-3038.	6.7	34
56	NANOPARTICLE-MICELLE: A NEW BUILDING BLOCK FOR FACILE SELF-ASSEMBLY AND INTEGRATION OF 2-, 3-DIMENSIONAL FUNCTIONAL NANOSTRUCTURES. Annual Review of Nano Research, 2006, , 153-187.	0.2	0
57	Optical and electrical properties of self-assembled, ordered gold nanocrystal/silica thin films prepared by solâ€“gel processing. Thin Solid Films, 2005, 491, 38-42.	1.8	21
58	Surface Plasmon Excitation in Three-dimensional, Ordered, Gold Nanocrystal Arrays Using a Prism Coupler. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0
59	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.	0.1	2
60	Surfactant-Assisted Synthesis of Water-Soluble and Biocompatible Semiconductor Quantum Dot Micelles. Nano Letters, 2005, 5, 645-648.	9.1	233
61	Synthesis of Organo-Silane Functionalized Nanocrystal Micelles and Their Self-Assembly. Journal of the American Chemical Society, 2005, 127, 13746-13747.	13.7	56
62	Self-Assembly of Ordered, Robust, Three-Dimensional Gold Nanocrystal/Silica Arrays. Science, 2004, 304, 567-571.	12.6	468
63	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.	13.7	475
64	Adsorption of Surface-Modified Colloidal Gold Particles onto Self-Assembled Monolayers:Â A Model System for the Study of Interactions of Colloidal Particles and Organic Surfaces. Langmuir, 1997, 13, 119-121.	3.5	37
65	Stepwise assembly in three dimensions: Preparation and characterization of layered gold nanoparticles in porous silica matrices. Advanced Materials, 1997, 9, 728-731.	21.0	29
66	Electrochemical Patterning of Self-Assembled Monolayers onto Microscopic Arrays of Gold Electrodes Fabricated by Laser Ablation. Langmuir, 1996, 12, 5515-5518.	3.5	85
67	Attachment of bacteria to model solid surfaces: oligo(ethylene glycol) surfaces inhibit bacterial attachment. FEMS Microbiology Letters, 1996, 142, 59-63.	1.8	4