

Hongyou Fan

List of Publications by Year in descending order

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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	Formation mechanism and optimization of highly luminescent N-doped graphene quantum dots. <i>Scientific Reports</i> , 2014, 4, 5294.	3.3	759
2	Evaporation-Induced Self-Assembly of Hybrid Bridged Silsesquioxane Film and Particulate Mesophases with Integral Organic Functionality. <i>Journal of the American Chemical Society</i> , 2000, 122, 5258-5261.	13.7	475
3	Self-Assembly of Ordered, Robust, Three-Dimensional Gold Nanocrystal/Silica Arrays. <i>Science</i> , 2004, 304, 567-571.	12.6	468
4	Surfactant-Assisted Synthesis of Water-Soluble and Biocompatible Semiconductor Quantum Dot Micelles. <i>Nano Letters</i> , 2005, 5, 645-648.	9.1	233
5	Synthesis of Self-Assembled Porphyrin Nanoparticle Photosensitizers. <i>ACS Nano</i> , 2018, 12, 3796-3803.	14.6	221
6	Self-Assembled One-Dimensional Porphyrin Nanostructures with Enhanced Photocatalytic Hydrogen Generation. <i>Nano Letters</i> , 2018, 18, 560-566.	9.1	169
7	Deviatoric Stress Driven Formation of Large Single-Crystal PbS Nanosheet from Nanoparticles and in Situ Monitoring of Oriented Attachment. <i>Journal of the American Chemical Society</i> , 2011, 133, 14484-14487.	13.7	168
8	Pressure Induced Nanoparticle Phase Behavior, Property, and Applications. <i>Chemical Reviews</i> , 2019, 119, 7673-7717.	47.7	164
9	Morphology-Controlled Synthesis and Metalation of Porphyrin Nanoparticles with Enhanced Photocatalytic Performance. <i>Nano Letters</i> , 2016, 16, 6523-6528.	9.1	138
10	Interfacial Self-Assembly Driven Formation of Hierarchically Structured Nanocrystals with Photocatalytic Activity. <i>ACS Nano</i> , 2014, 8, 827-833.	14.6	120
11	Templated Photocatalytic Synthesis of Well-Defined Platinum Hollow Nanostructures with Enhanced Catalytic Performance for Methanol Oxidation. <i>Nano Letters</i> , 2011, 11, 3759-3762.	9.1	119
12	Morphology-Controlled Self-Assembly and Synthesis of Photocatalytic Nanocrystals. <i>Nano Letters</i> , 2014, 14, 7175-7179.	9.1	119
13	Stress-induced phase transformation and optical coupling of silver nanoparticle superlattices into mechanically stable nanowires. <i>Nature Communications</i> , 2014, 5, 4179.	12.8	114
14	pH-Dependent Assembly of Porphyrin-Silica Nanocomposites and Their Application in Targeted Photodynamic Therapy. <i>Nano Letters</i> , 2017, 17, 6916-6921.	9.1	108
15	Oriented Gold Nanorod Arrays: Self-Assembly and Optoelectronic Applications. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 11956-11966.	13.8	94
16	Nanostructured Gold Architectures Formed through High Pressure-Driven Sintering of Spherical Nanoparticle Arrays. <i>Journal of the American Chemical Society</i> , 2010, 132, 12826-12828.	13.7	93
17	MoS ₂ -OH Bilayer-Mediated Growth of Inch-Sized Monolayer MoS ₂ on Arbitrary Substrates. <i>Journal of the American Chemical Society</i> , 2019, 141, 5392-5401.	13.7	87
18	Electrochemical Patterning of Self-Assembled Monolayers onto Microscopic Arrays of Gold Electrodes Fabricated by Laser Ablation. <i>Langmuir</i> , 1996, 12, 5515-5518.	3.5	85

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19	Microemulsion-Assisted Self-Assembly and Synthesis of Size-Controlled Porphyrin Nanocrystals with Enhanced Photocatalytic Hydrogen Evolution. <i>Nano Letters</i> , 2019, 19, 2614-2619.	9.1	85
20	Fabrication of Large-Area Arrays of Vertically Aligned Gold Nanorods. <i>Nano Letters</i> , 2018, 18, 4467-4472.	9.1	82
21	Pressure-Driven Assembly of Spherical Nanoparticles and Formation of 1D Nanostructure Arrays. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 8431-8434.	13.8	78
22	Porous One-Dimensional Nanostructures through Confined Cooperative Self-Assembly. <i>Nano Letters</i> , 2011, 11, 5196-5200.	9.1	76
23	Phase control of hierarchically structured mesoporous anatase TiO ₂ microspheres covered with {001} facets. <i>Journal of Materials Chemistry</i> , 2012, 22, 21965.	6.7	66
24	Pressure compression of CdSe nanoparticles into luminescent nanowires. <i>Science Advances</i> , 2017, 3, e1602916.	10.3	66
25	Surfactant-Assisted Cooperative Self-Assembly of Nanoparticles into Active Nanostructures. <i>IScience</i> , 2019, 11, 272-293.	4.1	66
26	Formation of self-assembled gold nanoparticle supercrystals with facet-dependent surface plasmonic coupling. <i>Nature Communications</i> , 2018, 9, 2365.	12.8	61
27	Instant gelation synthesis of 3D porous MoS ₂ @C nanocomposites for lithium ion batteries. <i>Nanoscale</i> , 2014, 6, 3664-3669.	5.6	58
28	Nanocrystal-micelle: synthesis, self-assembly and application. <i>Chemical Communications</i> , 2008, , 1383-1394.	4.1	57
29	Synthesis of Organo-Silane Functionalized Nanocrystal Micelles and Their Self-Assembly. <i>Journal of the American Chemical Society</i> , 2005, 127, 13746-13747.	13.7	56
30	Monodisperse Fluorescent Organic/Inorganic Composite Nanoparticles: Tuning Full Color Spectrum. <i>Chemistry of Materials</i> , 2012, 24, 3415-3419.	6.7	52
31	Stress-Induced Nanoparticle Crystallization. <i>Journal of the American Chemical Society</i> , 2014, 136, 7634-7636.	13.7	52
32	Hydrogen-Bonding-Assisted Self-Assembly: Monodisperse Hollow Nanoparticles Made Easy. <i>Journal of the American Chemical Society</i> , 2009, 131, 13594-13595.	13.7	50
33	Poly(<i>N</i> -isopropylacrylamide) Surfactant-Functionalized Responsive Silver Nanoparticles and Superlattices. <i>ACS Nano</i> , 2014, 8, 4799-4804.	14.6	44
34	Controlled Self-Assembly and Tuning of Large PbS Nanoparticle Supercrystals. <i>Chemistry of Materials</i> , 2018, 30, 6788-6793.	6.7	44
35	Regulating Multiple Variables To Understand the Nucleation and Growth and Transformation of PbS Nanocrystal Superlattices. <i>Journal of the American Chemical Society</i> , 2017, 139, 14476-14482.	13.7	42
36	Fabrication of Nickel Oxide Nanopillar Arrays on Flexible Electrodes for Highly Efficient Perovskite Solar Cells. <i>Nano Letters</i> , 2019, 19, 3676-3683.	9.1	41

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37	Porphyrin-based photocatalysts for hydrogen production. <i>MRS Bulletin</i> , 2020, 45, 49-56.	3.5	40
38	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. <i>Langmuir</i> , 1997, 13, 119-121.	3.5	37
39	Deviatoric Stress-Driven Fusion of Nanoparticle Superlattices. <i>Nano Letters</i> , 2014, 14, 4951-4958.	9.1	37
40	Shape Dependence of Pressure-Induced Phase Transition in CdS Semiconductor Nanocrystals. <i>Journal of the American Chemical Society</i> , 2020, 142, 6505-6510.	13.7	36
41	Hierarchically Organized Nanoparticle Mesostructure Arrays Formed through Hydrothermal Self-Assembly. <i>Chemistry of Materials</i> , 2006, 18, 3034-3038.	6.7	34
42	Dynamic Investigation of Gold Nanocrystal Assembly Using In Situ Grazing-Incidence Small-Angle X-ray Scattering. <i>Langmuir</i> , 2008, 24, 10575-10578.	3.5	34
43	Ordered nanocrystal/silica particles self-assembled from nanocrystal micelles and silicate. <i>Chemical Communications</i> , 2006, , 2323.	4.1	31
44	Monodisperse porous nanodiscs with fluorescent and crystalline wall structure. <i>Chemical Communications</i> , 2010, 46, 4941.	4.1	31
45	Superfast assembly and synthesis of gold nanostructures using nanosecond low-temperature compression via magnetic pulsed power. <i>Nature Communications</i> , 2017, 8, 14778.	12.8	31
46	Stepwise assembly in three dimensions: Preparation and characterization of layered gold nanoparticles in porous silica matrices. <i>Advanced Materials</i> , 1997, 9, 728-731.	21.0	29
47	Convective self-assembly to deposit supported ultra-thin mesoporous silica films. <i>Journal of Materials Chemistry</i> , 2006, 16, 4637.	6.7	27
48	Smart polydiacetylene nanowire paper with tunable colorimetric response. <i>Journal of Materials Chemistry</i> , 2012, 22, 14839.	6.7	23
49	Pressure-tuned Structure and Property of Optically Active Nanocrystals. <i>Advanced Materials</i> , 2016, 28, 1989-1993.	21.0	22
50	Optical and electrical properties of self-assembled, ordered gold nanocrystal/silica thin films prepared by sol-gel processing. <i>Thin Solid Films</i> , 2005, 491, 38-42.	1.8	21
51	Preparation of highly luminescent and color tunable carbon nanodots under visible light excitation for in vitro and in vivo bio-imaging. <i>Journal of Materials Research</i> , 2015, 30, 3386-3393.	2.6	20
52	Cooperative self-assembly of porphyrins and derivatives. <i>MRS Bulletin</i> , 2019, 44, 178-182.	3.5	12
53	Oriented Gold Nanorod Arrays: Self-Assembly and Optoelectronic Applications. <i>Angewandte Chemie</i> , 2019, 131, 12082-12092.	2.0	11
54	Pressure Induced Assembly and Coalescence of Lead Chalcogenide Nanocrystals. <i>Journal of the American Chemical Society</i> , 2021, 143, 2688-2693.	13.7	11

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55	Nanomaterials under stress: A new opportunity for nanomaterials synthesis and engineering. MRS Bulletin, 2015, 40, 961-970.	3.5	9
56	Template directed assembly of dynamic micellar nanoparticles. Soft Matter, 2011, 7, 10252.	2.7	7
57	High pressure induced atomic and mesoscale phase behaviors of one-dimensional TiO ₂ anatase nanocrystals. MRS Bulletin, 2022, 47, 455-460.	3.5	6
58	Modeling pressure-driven assembly of polymer coated nanoparticles. AIP Conference Proceedings, 2018, , .	0.4	4
59	Self-assembly of functional nanoscale materials. MRS Bulletin, 2020, 45, 135-141.	3.5	4
60	Attachment of bacteria to model solid surfaces: oligo(ethylene glycol) surfaces inhibit bacterial attachment. FEMS Microbiology Letters, 1996, 142, 59-63.	1.8	4
61	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
62	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
63	Surfactant-Assisted Synthesis of Tetragonal Porphyrin Microparticles. MRS Advances, 2018, 3, 2757-2762.	0.9	2
64	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
65	Nanocrystals: Pressure-Tuned Structure and Property of Optically Active Nanocrystals (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlo 21.0 8	21.0	8
66	Identification of Porphyrin-Silica Composite Nanoparticles using Atmospheric Solids Analysis Probe Mass Spectrometry. MRS Advances, 2019, 4, 2079-2086.	0.9	0
67	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