Dehong Chen

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Mesoporous Anatase TiO₂ Beads with High Surface Areas and Controllable Pore Sizes: A Superior Candidate for Highâ€Performance Dyeâ€Sensitized Solar Cells. Advanced Materials, 2009, 21, 2206-2210.	21.0	926
2	Dye-Sensitized Solar Cells Employing a Single Film of Mesoporous TiO₂ Beads Achieve Power Conversion Efficiencies Over 10%. ACS Nano, 2010, 4, 4420-4425.	14.6	412
3	Synthesis of Monodisperse Mesoporous Titania Beads with Controllable Diameter, High Surface Areas, and Variable Pore Diameters (14âˆ'23 nm). Journal of the American Chemical Society, 2010, 132, 4438-4444.	13.7	405
4	Dualâ€Function Scattering Layer of Submicrometerâ€Sized Mesoporous TiO₂ Beads for Highâ€Efficiency Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2010, 20, 1301-1305.	14.9	385
5	Nitrogen-containing carbon spheres with very large uniform mesopores: The superior electrode materials for EDLC in organic electrolyte. Carbon, 2007, 45, 1757-1763.	10.3	330
6	Nitrogen enriched mesoporous carbon spheres obtained by a facile method and its application for electrochemical capacitor. Electrochemistry Communications, 2007, 9, 569-573.	4.7	255
7	Highly Ordered Mesoporous Silicon Carbide Ceramics with Large Surface Areas and High Stability. Advanced Functional Materials, 2006, 16, 561-567.	14.9	199
8	Recent Progress in the Synthesis of Spherical Titania Nanostructures and Their Applications. Advanced Functional Materials, 2013, 23, 1356-1374.	14.9	195
9	Glucose-assisted synthesis of the hierarchical TiO₂ nanowire@MoS₂ nanosheet nanocomposite and its synergistic lithium storage performance. Journal of Materials Chemistry A, 2015, 3, 2762-2769.	10.3	142
10	Recent progress in hybrid perovskite solar cells based on n-type materials. Journal of Materials Chemistry A, 2017, 5, 10092-10109.	10.3	136
11	Anionic surfactant induced mesophase transformation to synthesize highly ordered large-pore mesoporous silica structures. Journal of Materials Chemistry, 2006, 16, 1511.	6.7	130
12	Chemical Bonding and Physical Trapping of Sulfur in Mesoporous MagnÃ©li Ti₄O₇ Microspheres for Highâ€Performance Liâ€"S Battery. Advanced Energy Materials, 2017, 7, 1601616.	19.5	130
13	Extremely high arsenic removal capacity for mesoporous aluminium magnesium oxide composites. Environmental Science: Nano, 2016, 3, 94-106.	4.3	123
14	Colossal permittivity with ultralow dielectric loss in In + Ta co-doped rutile TiO₂. Journal of Materials Chemistry A, 2017, 5, 5436-5441.	10.3	123
15	Mesoporous TiO₂/g-C₃N₄ Microspheres with Enhanced Visible-Light Photocatalytic Activity. Journal of Physical Chemistry C, 2017, 121, 22114-22122.	3.1	118
16	Inorganic Macroporous Films from Preformed Nanoparticles and Membrane Templates: Synthesis and Investigation of Photocatalytic and Photoelectrochemical Properties. Advanced Functional Materials, 2003, 13, 789-794.	14.9	102
17	Thin Films of Dendritic Anatase Titania Nanowires Enable Effective Holeâ€Blocking and Efficient Lightâ€Harvesting for Highâ€Performance Mesoscopic Perovskite Solar Cells. Advanced Functional Materials, 2015, 25, 3264-3272.	14.9	101
18	Stability Comparison of Perovskite Solar Cells Based on Zinc Oxide and Titania on Polymer Substrates. ChemSusChem, 2016, 9, 687-695.	6.8	101

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19	Surfaceâ€Metastable Phaseâ€Initiated Seeding and Ostwald Ripening: A Facile Fluorineâ€Free Process towards Spherical Fluffy Core/Shell, Yolk/Shell, and Hollow Anatase Nanostructures. Angewandte Chemie - International Edition, 2013, 52, 10986-10991.	13.8	99
20	High Reversible Pseudocapacity in Mesoporous Yolkâ€“Shell Anatase TiO₂/TiO₂(B) Microspheres Used as Anodes for Liâ€Ion Batteries. Advanced Functional Materials, 2017, 27, 1703270.	14.9	99
21	Developing sustainable, high-performance perovskites in photocatalysis: design strategies and applications. Chemical Society Reviews, 2021, 50, 13692-13729.	38.1	97
22	Micrometer-to-Nanometer Replication of Hierarchical Structures by Using a Surface Solâ€“Gel Process. Angewandte Chemie - International Edition, 2004, 43, 2746-2748.	13.8	96
23	Nonionic Block Copolymer and Anionic Mixed Surfactants Directed Synthesis of Highly Ordered Mesoporous Silica with Bicontinuous Cubic Structure. Chemistry of Materials, 2005, 17, 3228-3234.	6.7	91
24	Hydrothermal synthesis and characterization of octahedral nickel ferrite particles. Powder Technology, 2003, 133, 247-250.	4.2	90
25	Enhanced Electrochromic Properties of WO₃ Nanotree-like Structures Synthesized via a Two-Step Solvothermal Process Showing Promise for Electrochromic Window Application. ACS Applied Nano Materials, 2018, 1, 2552-2558.	5.0	84
26	Titania and Mixed Titania/Aluminum, Gallium, or Indium Oxide Spheres: Sol-Gel/Template Synthesis and Photocatalytic Properties. Advanced Functional Materials, 2005, 15, 239-245.	14.9	82
27	Flowerlike WSe₂ and WS₂ microspheres: one-pot synthesis, formation mechanism and application in heavy metal ion sequestration. Chemical Communications, 2016, 52, 4481-4484.	4.1	81
28	Tricomponent brookite/anatase TiO₂/g-C₃N₄ heterojunction in mesoporous hollow microspheres for enhanced visible-light photocatalysis. Journal of Materials Chemistry A, 2018, 6, 7236-7245.	10.3	74
29	Facile Synthesis of Monodisperse Mesoporous Zirconium Titanium Oxide Microspheres with Varying Compositions and High Surface Areas for Heavy Metal Ion Sequestration. Advanced Functional Materials, 2012, 22, 1966-1971.	14.9	73
30	Hierarchically Porous Titania Networks with Tunable Anatase:Rutile Ratios and Their Enhanced Photocatalytic Activities. ACS Applied Materials & Interfaces, 2014, 6, 13129-13137.	8.0	73
31	Mesoporous Fe2O3 microspheres: Rapid and effective enrichment of phosphopeptides for MALDI-TOF MS analysis. Journal of Colloid and Interface Science, 2008, 318, 315-321.	9.4	69
32	Thin Films of Tin Oxide Nanosheets Used as the Electron Transporting Layer for Improved Performance and Ambient Stability of Perovskite Photovoltaics. Solar Rrl, 2017, 1, 1700117.	5.8	69
33	Methyl orange removal by combined visible-light photocatalysis and membrane distillation. Dyes and Pigments, 2013, 98, 106-112.	3.7	64
34	Hierarchically Porous WO₃/CdWO₄ Fiber-in-Tube Nanostructures Featuring Readily Accessible Active Sites and Enhanced Photocatalytic Effectiveness for Antibiotic Degradation in Water. ACS Applied Materials & Interfaces, 2021, 13, 21138-21148.	8.0	64
35	Sensitization of nickel oxide: improved carrier lifetime and charge collection by tuning nanoscale crystallinity. Chemical Communications, 2012, 48, 9885.	4.1	60
36	Enhanced electrochromic performance of WO₃ nanowire networks grown directly on fluorine-doped tin oxide substrates. Journal of Materials Chemistry C, 2016, 4, 10500-10508.	5.5	60

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37	Colossal permittivity behavior and its origin in rutile (Mg1/3Ta2/3)xTi1-xO2. Scientific Reports, 2017, 7, 9950.	3.3	60
38	Versatile inorganic-organic hybrid WO x -ethylenediamine nanowires: Synthesis, mechanism and application in heavy metal ion adsorption and catalysis. Nano Research, 2014, 7, 903-916.	10.4	59
39	Hollow-structured hematite particles derived from layered iron (hydro)oxyhydroxideâ€“surfactant composites. Journal of Materials Chemistry, 2003, 13, 2266-2270.	6.7	53
40	Solventâ€Mediated Dimension Tuning of Semiconducting Oxide Nanostructures as Efficient Charge Extraction Thin Films for Perovskite Solar Cells with Efficiency Exceeding 16%. Advanced Energy Materials, 2016, 6, 1502027.	19.5	52
41	Engineering of Monodisperse Mesoporous Titania Beads for Photocatalytic Applications. ACS Applied Materials & Interfaces, 2013, 5, 9421-9428.	8.0	49
42	Mesoporous Titanium Zirconium Oxide Nanospheres with Potential for Drug Delivery Applications. ACS Applied Materials & Interfaces, 2013, 5, 10926-10932.	8.0	43
43	The Formation of Defectâ€Pairs for Highly Efficient Visibleâ€Light Catalysts. Advanced Materials, 2017, 29, 1605123.	21.0	43
44	Flexible dye-sensitized solar cells containing multiple dyes in discrete layers. Energy and Environmental Science, 2011, 4, 2803.	30.8	41
45	Effect of Mesoporous TiO2 Bead Diameter in Working Electrodes on the Efficiency of Dye-Sensitized Solar Cells. ChemSusChem, 2011, 4, 1498-1503.	6.8	40
46	N-doped Li₄Ti₅O₁₂ nanoflakes derived from 2D protonated titanate for high performing anodes in lithium ion batteries. Journal of Materials Chemistry A, 2016, 4, 7772-7780.	10.3	39
47	Understanding Solvothermal Crystallization of Mesoporous Anatase Beads by In Situ Synchrotron PXRD and SAXS. Chemistry of Materials, 2014, 26, 4563-4571.	6.7	37
48	Advancing Metalâ€Organic Frameworks toward Smart Sensing: Enhanced Fluorescence by a Photonic Metalâ€Organic Framework for Organic Vapor Sensing. Advanced Optical Materials, 2020, 8, 2000961.	7.3	36
49	Ordered Mesoporous Graphitic Carbon/Iron Carbide Composites with High Porosity as a Sulfur Host for Liâ€“S Batteries. ACS Applied Materials & Interfaces, 2019, 11, 13194-13204.	8.0	34
50	Solvothermal synthesis of Î±-Fe2O3 particles with different morphologies. Materials Research Bulletin, 2001, 36, 1057-1064.	5.2	32
51	The influence of ruthenium substitution in LaCoO₃ towards bi-functional electrocatalytic activity for rechargeable Znâ€“air batteries. Journal of Materials Chemistry A, 2020, 8, 20612-20620.	10.3	32
52	Construction of nanostructured electrodes on flexible substrates using pre-treated building blocks. Applied Physics Letters, 2012, 100, .	3.3	31
53	Solution-processed Zn2SnO4 electron transporting layer for efficient planar perovskite solar cells. Materials Today Energy, 2018, 7, 260-266.	4.7	30
54	Noble Metalâ€Modified Porous Titania Networks and their Application as Photocatalysts. ChemCatChem, 2011, 3, 1763-1771.	3.7	28

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55	Amine-Functionalized Titania-based Porous Structures for Carbon Dioxide Postcombustion Capture. Journal of Physical Chemistry C, 2013, 117, 9747-9757.	3.1	28
56	Enhanced Photocatalytic Activity: Macroporous Electrospun Mats of Mesoporous Au/TiO₂ Nanofibers. ChemCatChem, 2013, 5, 2646-2654.	3.7	28
57	Optimizing semiconductor thin films with smooth surfaces and well-interconnected networks for high-performance perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 12463-12470.	10.3	28
58	Spiky Mesoporous Anatase Titania Beads: A Metastable Ammonium Titanateâ€Mediated Synthesis. Chemistry - A European Journal, 2012, 18, 13762-13769.	3.3	27
59	Synthesis and phase behaviors of bicontinuous cubic mesoporous silica from triblock copolymer mixed anionic surfactant. Microporous and Mesoporous Materials, 2007, 105, 34-40.	4.4	26
60	Temperature-induced modulation of mesopore size in hierarchically porous amorphous TiO₂/ZrO₂ beads for improved dye adsorption capacity. Journal of Materials Chemistry A, 2015, 3, 3768-3776.	10.3	26
61	Monodisperse anatase titania microspheres with high-thermal stability and large pore size (â^¼80 nm) as efficient photocatalysts. Journal of Materials Chemistry A, 2017, 5, 3645-3654.	10.3	26
62	Synthesis of Large-Pore Periodic Mesoporous Organosilica (PMO) with Bicontinuous Cubic Structure oflaâ€"3dSymmetry. Chemistry Letters, 2005, 34, 182-183.	1.3	24
63	The Effect of the Scattering Layer in Dyeâ€Sensitized Solar Cells Employing a Cobaltâ€Based Aqueous Gel Electrolyte. ChemSusChem, 2015, 8, 3704-3711.	6.8	23
64	Integrated planar and bulk dual heterojunctions capable of efficient electron and hole extraction for perovskite solar cells with >17% efficiency. Nano Energy, 2017, 32, 187-194.	16.0	23
65	Solvent-Mediated Intragranular-Coarsening of CH₃NH₃PbI₃ Thin Films toward High-Performance Perovskite Photovoltaics. ACS Applied Materials & Interfaces, 2017, 9, 31959-31967.	8.0	23
66	Rollâ€toâ€Roll Processes for the Fabrication of Perovskite Solar Cells under Ambient Conditions. Solar Rrl, 2021, 5, 2100341.	5.8	22
67	Monodisperse mesoporous anatase beads as high performance and safer anodes for lithium ion batteries. Nanoscale, 2015, 7, 17947-17956.	5.6	21
68	Mesoporous Nitrogenâ€Modified Titania with Enhanced Dye Adsorption Capacity and Visible Light Photocatalytic Activity. ChemistrySelect, 2016, 1, 4868-4878.	1.5	20
69	Preparation and characteristics of solâ€"gel derived Zn2SiO4 doped with Ni2+. Inorganic Chemistry Communication, 2002, 5, 482-486.	3.9	19
70	Effect of TiO₂ microbead pore size on the performance of DSSCs with a cobalt based electrolyte. Nanoscale, 2014, 6, 13787-13794.	5.6	19
71	Crystal Facet Engineering of Singleâ€Crystalline TiC Nanocubes for Improved Hydrogen Evolution Reaction. Advanced Functional Materials, 2021, 31, 2008028.	14.9	17
72	Use of metamodels for rapid discovery of narrow bandgap oxide photocatalysts. IScience, 2021, 24, 103068.	4.1	17

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73	Mesoporous titania beads for flexible dye-sensitized solar cells. Journal of Materials Chemistry C, 2014, 2, 1284-1289.	5.5	16
74	Sub-100ÂÂ°C solution processed amorphous titania nanowire thin films for high-performance perovskite solar cells. Journal of Power Sources, 2016, 329, 17-22.	7.8	14
75	Three-dimensional titanium oxide nanoarrays for perovskite photovoltaics: surface engineering for cascade charge extraction and beneficial surface passivation. Sustainable Energy and Fuels, 2017, 1, 1960-1967.	4.9	13
76	An Easy Route for the Synthesis of Ordered Three-Dimensional Large-Pore Mesoporous Organosilicas withIm-3mSymmetry. Chemistry Letters, 2004, 33, 1132-1133.	1.3	12
77	Fluoride Perovskite (KNi_{<i>x</i>}Co_{1â€"<i>x</i>}F₃) Oxygen-Evolution Electrocatalyst with Highly Polarized Electronic Configuration. ACS Applied Energy Materials, 2021, 4, 13425-13430.	5.1	12
78	Trace-Level Fluorination of Mesoporous TiO₂ Improves Photocatalytic and Pb(II) Adsorbent Performances. Inorganic Chemistry, 2020, 59, 17631-17637.	4.0	9
79	Low-Temperature Solution-Processed Amorphous Titania Nanowire Thin Films for 1 cm² Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 11450-11458.	8.0	9
80	Charge Transport in Photoanodes Constructed with Mesoporous TiO₂ Beads for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16635-16642.	3.1	8
81	Effect of cosolvents on the self-assembly of a non-ionic polyethylene oxideâ€"polypropylene oxideâ€"polyethylene oxide block copolymer in the protic ionic liquid ethylammonium nitrate. Journal of Colloid and Interface Science, 2015, 441, 46-51.	9.4	7
82	Enhanced Photoelectrochemical Performances in Flexible Mesoscopic Solar Cells: An Effective Lightâ€Scattering Material. ChemPhotoChem, 2018, 2, 986-993.	3.0	5
83	Perovskite Solar Cells: Solventâ€Mediated Dimension Tuning of Semiconducting Oxide Nanostructures as Efficient Charge Extraction Thin Films for Perovskite Solar Cells with Efficiency Exceeding 16% (Adv. Energy Mater. 7/2016). Advanced Energy Materials, 2016, 6, .	19.5	0
84	Chapter 7. Controlling the Photoanode Mesostructure for Dye-sensitized and Perovskite-sensitized Solar Cells. , 2016, , 292-323.		0