Astam K Patra

List of Publications by Year
in descending order

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50 papers	2,258 citations	185998 28 h-index	214527 47 g-index
54 all docs	54 docs citations	54 times ranked	3327 citing authors

#	Article	IF	Citations
1	Self-assembled mesoporous Î³-Al2O3 spherical nanoparticles and their efficiency for the removal of arsenic from water. Journal of Hazardous Materials, 2012, 201-202, 170-177.	6.5	132
2	Synthesis of 5â€Hydroxymethylfurural from Carbohydrates using Largeâ€Pore Mesoporous Tin Phosphate. ChemSusChem, 2014, 7, 925-933.	3.6	123
3	Cu nanorods and nanospheres and their excellent catalytic activity in chemoselective reduction of nitrobenzenes. Catalysis Communications, 2010, 11, 651-655.	1.6	118
4	Microwave assisted rapid conversion of carbohydrates into 5-hydroxymethylfurfural catalyzed by mesoporous TiO2 nanoparticles. Applied Catalysis A: General, 2011, 409-410, 133-139.	2.2	118
5	Efficient Solid Acid Catalyst Containing Lewis and BrÃ¸nsted Acid Sites for the Production of Furfurals. ChemSusChem, 2014, 7, 2342-2350.	3.6	106
6	Morphology evolution of single-crystalline hematite nanocrystals: magnetically recoverable nanocatalysts for enhanced facet-driven photoredox activity. Nanoscale, 2016, 8, 365-377.	2.8	99
7	Hierarchically porous titanium phosphate nanoparticles: an efficient solid acid catalyst for microwave assisted conversion of biomass and carbohydrates into 5-hydroxymethylfurfural. Journal of Materials Chemistry, 2012, 22, 14094.	6.7	93
8	Self-assembly of mesoporous TiO2 nanospheres via aspartic acid templating pathway and its catalytic application for 5-hydroxymethyl-furfural synthesis. Journal of Materials Chemistry, 2011, 21, 17505.	6.7	89
9	Highly Ordered Mesoporous TiO₂â€“Fe₂O₃ Mixed Oxide Synthesized by Solâ€“Gel Pathway: An Efficient and Reusable Heterogeneous Catalyst for Dehalogenation Reaction. ACS Applied Materials & Interfaces, 2012, 4, 5022-5028.	4.0	88
10	IrO₂ and Pt Doped Mesoporous SnO₂ Nanospheres as Efficient Electrocatalysts for the Facile OER and HER. ChemCatChem, 2019, 11, 583-592.	1.8	82
11	Self-assembled mesoporous TiO2 spherical nanoparticles by a new templating pathway and its enhanced photoconductivity in the presence of an organic dye. Journal of Materials Chemistry, 2011, 21, 3925.	6.7	73
12	Self-Assembled TiO₂ Nanospheres By Using a Biopolymer as a Template and Its Optoelectronic Application. ACS Applied Materials & Interfaces, 2012, 4, 1560-1564.	4.0	73
13	Porous organicâ€“inorganic hybrid nickel phosphonate: Adsorption and catalytic applications. Microporous and Mesoporous Materials, 2012, 155, 208-214.	2.2	59
14	Functionalized graphene oxide as an efficient adsorbent for CO₂ capture and support for heterogeneous catalysis. RSC Advances, 2016, 6, 72055-72068.	1.7	58
15	Synthesis of Hierarchical Mesoporous Mnâ€“MFI Zeolite Nanoparticles: A Unique Architecture of Heterogeneous Catalyst for the Aerobic Oxidation of Thiols to Disulfides. ChemCatChem, 2014, 6, 220-229.	1.8	56
16	Synthesis and Temperatureâ€Induced Morphological Control in a Hybrid Porous Ironâ€“Phosphonate Nanomaterial and Its Excellent Catalytic Activity in the Synthesis of Benzimidazoles. Chemistry - A European Journal, 2012, 18, 13372-13378.	1.7	54
17	Highly robust magnetically recoverable Ag/Fe 2 O 3 nanocatalyst for chemoselective hydrogenation of nitroarenes in water. Applied Catalysis A: General, 2017, 538, 148-156.	2.2	51
18	Biopolymer templated porous TiO2: An efficient catalyst for the conversion of unutilized sugars derived from hemicellulose. Applied Catalysis A: General, 2012, 435-436, 197-203.	2.2	48

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19	Hybrid porous tin(iv) phosphonate: an efficient catalyst for adipic acid synthesis and a very good adsorbent for CO2 uptake. Chemical Communications, 2012, 48, 6738.	2.2	48
20	New Hybrid Iron Phosphonate Material as an Efficient Catalyst for the Synthesis of Adipic Acid in Air and Water. ACS Sustainable Chemistry and Engineering, 2016, 4, 7147-7157.	3.2	44
21	Mesoporous Coreâ€“Shell Fenton Nanocatalyst: A Mild, Operationally Simple Approach to the Synthesis of Adipic Acid. Chemistry - A European Journal, 2013, 19, 12388-12395.	1.7	43
22	Enhanced photocatalytic performance of novel self-assembled floral Î²-Ga2O3 nanorods. Current Applied Physics, 2013, 13, 652-658.	1.1	41
23	A Multifunctional Porous Organic Schottky Barrier Diode. Angewandte Chemie - International Edition, 2012, 51, 12534-12537.	7.2	37
24	Controlled Synthesis of a Hexagonalâ€Shaped NiO Nanocatalyst with Highly Reactive Facets {1â€‰1â€‰0} and Its Catalytic Activity. ChemCatChem, 2015, 7, 791-798.	1.8	36
25	Self-assembled titanium phosphonate nanomaterial having a mesoscopic void space and its optoelectronic application. Dalton Transactions, 2013, 42, 5140.	1.6	35
26	Smart Design of Self-Assembled Mesoporous Î±-FeOOH Nanoparticles: High-Surface-Area Sorbent for Hg²⁺ from Wastewater. ACS Sustainable Chemistry and Engineering, 2017, 5, 1272-1279.	3.2	34
27	Template-Free Synthesis of a Porous Organicâ€“inorganic Hybrid Tin(IV) Phosphonate and Its High Catalytic Activity for Esterification of Free Fatty Acids. ACS Applied Materials & Interfaces, 2013, 5, 9913-9917.	4.0	33
28	Organic additives assisted synthesis of mesoporous Î²-Ga₂O₃ nanostructures for photocatalytic dye degradation. Semiconductor Science and Technology, 2013, 28, 035015.	1.0	29
29	Synthesis of Cuboid-Shaped Single-Crystalline TiO₂ Nanocrystals with High-Energy Facets {001} and Its Dye-Sensitized Solar Cell Application. Journal of Physical Chemistry C, 2014, 118, 16703-16709.	1.5	29
30	Pore size and concentration effect of mesoporous silica nanoparticles on the coefficient of thermal expansion and optical transparency of poly(ether sulfone) films. Physical Chemistry Chemical Physics, 2017, 19, 1937-1944.	1.3	28
31	Self-assembled ultra-small zinc stannate nanocrystals with mesoscopic voids via a salicylate templating pathway and their photocatalytic properties. RSC Advances, 2014, 4, 13626-13634.	1.7	27
32	Mesoporous MFI zeolite material from silicaâ€“alumina/epoxy-resin composite material and its catalytic activity. Microporous and Mesoporous Materials, 2011, 142, 381-388.	2.2	26
33	Ceriaâ€Containing Ordered Mesoporous Silica: Synthesis, Properties, and Applications. ChemCatChem, 2016, 8, 285-303.	1.8	26
34	Synthesis of highly magnetic iron oxide nanomaterials from waste iron by one-step approach. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 589, 124420.	2.3	25
35	Poly[3-(2-hydroxyethyl)-2,5-thienylene] grafted reduced graphene oxide: an efficient alternate material of TiO2 in dye sensitized solar cells. Chemical Communications, 2013, 49, 4646.	2.2	24
36	A palladium-loaded mesoporous polymer monolith as reusable heterogeneous catalyst for cross-coupling reactions. Reactive and Functional Polymers, 2014, 79, 8-13.	2.0	24

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37	Self-assembled ultra small ZnO nanocrystals for dye-sensitized solar cell application. Journal of Solid State Chemistry, 2014, 215, 135-142.	1.4	23
38	NASICON type ordered mesoporous lithium-aluminum-titanium-phosphate as electrode materials for lithium-ion batteries. Microporous and Mesoporous Materials, 2017, 240, 57-64.	2.2	20
39	Chemically modified poly(arylene ether ketone)s with pendant imidazolium groups: Anion exchange membranes for alkaline fuel cells. International Journal of Hydrogen Energy, 2018, 43, 4517-4527.	3.8	20
40	Synthesis of Hollow Doughnut Shape Mesoporous Silica Nanoparticle: A Case of Self-Assembly Composite Templates. Langmuir, 2018, 34, 3901-3908.	1.6	14
41	A new microporous oxyfluorinated titanium(IV) phosphate as an efficient heterogeneous catalyst for the selective oxidation of cyclohexanone. Journal of Colloid and Interface Science, 2018, 511, 92-100.	5.0	13
42	Fabrication, characterization and catalytic oxidation of propylene over TS-1/Au membranes. Chemical Engineering Science, 2012, 75, 250-255.	1.9	10
43	ReductantâEFree Synthesis of Silver Nanoparticles by Functionalized Hollow Doughnut Mesoporous Silica Nanoparticles for Preparation of Catalytic Nanoreactor. ChemistrySelect, 2018, 3, 1772-1780.	0.7	9
44	Unusual Photoactive Water Oxidation Activity of Pt/PtO_x Cocatalyst Decorated Crystalline Î±â€Fe₂O₃ Nanostructures: Exposed Facets Dependent Reactivity. ChemCatChem, 2020, 12, 2315-2323.	1.8	9
45	Ultrathin nickel oxide nanosheets: Highly exposed Ni3+-doped high-energy {110} facets. Materials Research Bulletin, 2021, 139, 111251.	2.7	9
46	Acid functionalized mesoporous PAN monolith as reusable heterogeneous organocatalyst. Microporous and Mesoporous Materials, 2014, 193, 122-126.	2.2	8
47	Mesoporous CdS via Network of Self-Assembled Nanocrystals: Synthesis, Characterization and Enhanced Photoconducting Property. Journal of Nanoscience and Nanotechnology, 2018, 18, 256-263.	0.9	3
48	Hollow doughnut shaped mesoporous silica nanoparticles for reduction of the thermal expansion coefficient of poly(ether sulfone) films. New Journal of Chemistry, 2018, 42, 5045-5051.	1.4	2
49	Self-Assembled Mesoporous TiO₂ Nanocrystals as Efficient Photocatalyst for the Degradation of an Organic Dye. Advanced Porous Materials, 2013, 1, 187-193.	0.3	2
50	Adsorption over polyacrylonitrile based carbon monoliths. , 2013, , .		0