Ujjal K Gautam

List of Publications by Year
in descending order

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83 papers	7,051 citations	101543 36 h-index	54911 84 g-index
84 all docs	84 docs citations	84 times ranked	9030 citing authors

#	Article	IF	Citations
1	Ultrathin Twisty PdNi Alloy Nanowires as Highly Active ORR Electrocatalysts Exhibiting Morphology-Induced Durability over 200 K Cycles. Nano Letters, 2022, 22, 246-254.	9.1	40
2	Dimension switchable auto-fluorescent peptide-based 1D and 2D nano-assemblies and their self-influence on intracellular fate and drug delivery. Nanoscale, 2022, 14, 715-735.	5.6	8
3	Light-Induced Hypoxia in Carbon Quantum Dots and Ultrahigh Photocatalytic Efficiency. Journal of the American Chemical Society, 2022, 144, 2580-2589.	13.7	31
4	Confinement Matters: Stabilization of CdS Nanoparticles inside a Postmodified MOF toward Photocatalytic Hydrogen Evolution. ACS Applied Materials & Interfaces, 2022, 14, 25220-25231.	8.0	41
5	A â€˜self-activatingâ€™ Bi₃TaO₇â€“Bi₄TaO₈Br photocatalyst and its use in the sustainable production of pro-fluorophoric rhodamine-110. Green Chemistry, 2022, 24, 5514-5523.	9.0	3
6	Single-step insertion of M-Nx moieties in commercial carbon for sustainable bifunctional electrocatalysis: Mapping insertion capacity, mass loss, and carbon reconstruction. Carbon, 2022, 196, 1001-1011.	10.3	8
7	Unravelling charge-transfer in Pd to pyrrolic-N bond for superior electrocatalytic performance. Journal of Materials Chemistry A, 2021, 9, 10966-10978.	10.3	15
8	â€˜Pre-optimizationâ€™ of the solvent of nanoparticle synthesis for superior catalytic efficiency: a case study with Pd nanocrystals. Nanoscale Advances, 2021, 3, 2366-2376.	4.6	3
9	3D Porous Polymeric-Foam-Supported Pd Nanocrystal as a Highly Efficient and Recyclable Catalyst for Organic Transformations. ACS Applied Materials & Interfaces, 2021, 13, 10120-10130.	8.0	14
10	Prospects in Engineering Congested Molecular Diffusion at the Stabilizer Layer of Metal Nanocrystals for Ultrahigh Catalytic Activity. Journal of Physical Chemistry C, 2021, 125, 9827-9838.	3.1	1
11	Facile d-band tailoring in Sub-10Ânm Pd cubes by in-situ grafting on nitrogen-doped graphene for highly efficient organic transformations. Journal of Colloid and Interface Science, 2021, 590, 175-185.	9.4	12
12	Facile transfer of excited electrons in Au/SnS2 nanosheets for efficient solar-driven selective organic transformations. Applied Catalysis B: Environmental, 2021, 286, 119927.	20.2	38
13	â€˜Autophagyâ€™ and unique aerial oxygen harvesting properties exhibited by highly photocatalytic carbon quantum dots. Carbon, 2021, 181, 16-27.	10.3	19
14	Compressive strain induced by multiple phase distribution and atomic ordering in PdCu nanoparticles to enhanced ethanol oxidation reaction performance. Journal of Power Sources, 2021, 506, 230168.	7.8	7
15	Defect-rich, negatively-charged SnS2 nanosheets for efficient photocatalytic Cr(VI) reduction and organic dye adsorption in water. Journal of Colloid and Interface Science, 2021, 603, 110-119.	9.4	31
16	Wavelength dependent luminescence decay kinetics in â€˜quantum-confinedâ€™ g-C₃N₄ nanosheets exhibiting high photocatalytic efficiency upon plasmonic coupling. Journal of Materials Chemistry A, 2020, 8, 20581-20592.	10.3	16
17	Boosting Bifunctional Oxygen Reduction and Methanol Oxidation Electrocatalytic Activity with 2D Superlattice-Forming Pd Nanocubes Generated by Precise Acid Etching. ACS Applied Nano Materials, 2020, 3, 8117-8125.	5.0	21
18	Nanocrystalline Ag₃PO₄ for Sunlight- and Ambient Air-Driven Oxidation of Amines: High Photocatalytic Efficiency and a Facile Catalyst Regeneration Strategy. ACS Applied Materials & Interfaces, 2020, 12, 29324-29334.	8.0	11

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19	High and reversible oxygen uptake in carbon dot solutions generated from polyethylene facilitating reactant-enhanced solar light harvesting. Nanoscale, 2020, 12, 10480-10490.	5.6	15
20	Ni-Fe-layered double hydroxide/N-doped graphene oxide nanocomposite for the highly efficient removal of Pb(II) and Cd(II) ions from water. Journal of Solid State Chemistry, 2019, 280, 120963.	2.9	32
21	Synthesis of Bi₃TaO₇â€“Bi₄TaO₈Br composites in ambient air and their high photocatalytic activity upon metal loading. Dalton Transactions, 2019, 48, 7110-7116.	3.3	20
22	Self-immobilized Pd nanowires as an excellent platform for a continuous flow reactor: efficiency, stability and regeneration. Nanoscale, 2018, 10, 21396-21405.	5.6	13
23	Emerging Materials in Heterogeneous Electrocatalysis Involving Oxygen for Energy Harvesting. ACS Applied Materials & Interfaces, 2018, 10, 33737-33767.	8.0	52
24	Soya derived heteroatom doped carbon as a promising platform for oxygen reduction, supercapacitor and CO2 capture. Carbon, 2017, 114, 679-689.	10.3	134
25	Graphene Ingestion and Regrowth on â€œCarbon-Starvedâ€•Metal Electrodes. ACS Nano, 2017, 11, 10575-10582.	14.6	2
26	Pdâ€“Pt alloys nanowires as support-less electrocatalyst with high synergistic enhancement in efficiency for methanol oxidation in acidic medium. Journal of Colloid and Interface Science, 2016, 463, 99-106.	9.4	32
27	Mechanochemical Synthesis of Freeâ€Standing Platinum Nanosheets and Their Electrocatalytic Properties. Advanced Materials, 2015, 27, 4430-4437.	21.0	50
28	High-Yield Synthesis of Sub-10 nm Pt Nanotetrahedra with Bare âŸ¨111âŸ© Facets for Efficient Electrocatalytic Applications. ACS Applied Materials & Interfaces, 2015, 7, 4998-5005.	8.0	30
29	N- and S-doped high surface area carbon derived from soya chunks as scalable and efficient electrocatalysts for oxygen reduction. Science and Technology of Advanced Materials, 2015, 16, 014803.	6.1	28
30	Kinetically stabilized C60â€“toluene solvate nanostructures with a discrete absorption edge enabling supramolecular topotactic molecular exchange. Carbon, 2014, 74, 44-53.	10.3	21
31	Synthesis and thermal decomposition of metal hydroxide intercalated saponite. Applied Clay Science, 2014, 87, 163-169.	5.2	13
32	Room temperature conversion of metal oxides (MO, M = Zn, Cd and Mg) to peroxides: insight into a novel, scalable and recyclable synthesis leading to their lowest decomposition temperatures. CrystEngComm, 2014, 16, 1050-1055.	2.6	5
33	C₆₀â€Mediated Molecular Shape Sorting: Separation and Purification of Geometrical Isomers. Angewandte Chemie - International Edition, 2014, 53, 13523-13527.	13.8	23
34	Tuning the Oxygen Release Temperature of Metal Peroxides over a Wide Range by Formation of Solid Solutions. Chemistry of Materials, 2014, 26, 2720-2725.	6.7	2
35	Cobalt Hydroxide/Oxide Hexagonal Ringâ€“Graphene Hybrids through Chemical Etching of Metal Hydroxide Platelets by Graphene Oxide: Energy Storage Applications. ACS Nano, 2014, 8, 2755-2765.	14.6	120
36	Highly efficient photocatalytic hydrogen generation by solution-processed ZnO/Pt/CdS, ZnO/Pt/Cd1â^'xZnxS and ZnO/Pt/CdS1â^'xSex hybrid nanostructures. Energy and Environmental Science, 2013, 6, 3589.	30.8	225

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37	N-Doped Grapheneâ€“VO₂(B) Nanosheet-Built 3D Flower Hybrid for Lithium Ion Battery. ACS Applied Materials & Interfaces, 2013, 5, 2708-2714.	8.0	172
38	Oxidation of Toluene and Other Examples of Cï£¿H Bond Activation by CdO₂ and ZnO₂ Nanoparticles. ChemPlusChem, 2013, 78, 837-842.	2.8	9
39	Synthesis of chemically bonded CNTâ€“graphene heterostructure arrays. RSC Advances, 2012, 2, 8250.	3.6	37
40	Nanomaterial Engineering and Property Studies in a Transmission Electron Microscope. Advanced Materials, 2012, 24, 177-194.	21.0	43
41	Deep-ultraviolet solar-blind photoconductivity of individual gallium oxide nanobelts. Nanoscale, 2011, 3, 1120.	5.6	210
42	Asymmetric tungsten oxide nanobrushes via oriented attachment and Ostwald ripening. CrystEngComm, 2011, 13, 4074.	2.6	24
43	Fabrication of Luminescent Silver Doped PbS Nanowires in Polymer. Journal of Nanoscience and Nanotechnology, 2011, 11, 10234-10239.	0.9	5
44	ZnS nanostructures: From synthesis to applications. Progress in Materials Science, 2011, 56, 175-287.	32.8	1,134
45	Comparative study of the stability of sulfide materials encapsulated in and expelled from multi-walled carbon nanotube capsules. Carbon, 2011, 49, 342-346.	10.3	12
46	The electrical delivery of a sublimable IIâ€“VI compound by vapor transport in carbon nanotubes. Carbon, 2011, 49, 3747-3754.	10.3	14
47	An Efficient Way to Assemble ZnS Nanobelts as Ultravioletâ€Light Sensors with Enhanced Photocurrent and Stability. Advanced Functional Materials, 2010, 20, 500-508.	14.9	222
48	Electrical Transport and Highâ€Performance Photoconductivity in Individual ZrS₂ Nanobelts. Advanced Materials, 2010, 22, 4151-4156.	21.0	169
49	Rapid and Direct Conversion of Graphite Crystals into Highâ€Yielding, Goodâ€Quality Graphene by Supercritical Fluid Exfoliation. Chemistry - A European Journal, 2010, 16, 6488-6494.	3.3	167
50	Inorganically filled carbon nanotubes: Synthesis and properties. Pure and Applied Chemistry, 2010, 82, 2097-2109.	1.9	7
51	Unipolar assembly of zinc oxide rods manifesting polarity-driven collective luminescence. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13588-13592.	7.1	44
52	The mechanical response of turbostratic carbon nanotubes filled with Ga-doped ZnS: II. Slenderness ratio and crystalline filling effects. Nanotechnology, 2009, 20, 405707.	2.6	11
53	The mechanical response of turbostratic carbon nanotubes filled with Ga-doped ZnS: I. Data processing for the extraction of the elastic modulus. Nanotechnology, 2009, 20, 405706.	2.6	15
54	Solvothermal Synthesis, Cathodoluminescence, and Fieldâ€Emission Properties of Pure and Nâ€Doped ZnO Nanobullets. Advanced Functional Materials, 2009, 19, 131-140.	14.9	153

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55	Template Deformationâ€Tailored ZnO Nanorod/Nanowire Arrays: Full Growth Control and Optimization of Fieldâ€Emission. Advanced Functional Materials, 2009, 19, 3165-3172.	14.9	224
56	Singleâ€Crystalline ZnS Nanobelts as Ultravioletâ€Light Sensors. Advanced Materials, 2009, 21, 2034-2039.	21.0	537
57	Highâ€Performance Blue/Ultravioletâ€Lightâ€Sensitive ZnSeâ€Nanobelt Photodetectors. Advanced Materials, 2009, 21, 5016-5021.	21.0	217
58	Effect of crystalline filling on the mechanical response of carbon nanotubes. Carbon, 2009, 47, 541-544.	10.3	26
59	ZnO and ZnS Nanostructures: Ultraviolet-Light Emitters, Lasers, and Sensors. Critical Reviews in Solid State and Materials Sciences, 2009, 34, 190-223.	12.3	306
60	Heterostructures and superlattices in one-dimensional nanoscale semiconductors. Journal of Materials Chemistry, 2009, 19, 5683.	6.7	68
61	Synthesis of metalâ€“semiconductor heterojunctions inside carbon nanotubes. Journal of Materials Chemistry, 2009, 19, 4414.	6.7	14
62	Inorganic semiconductor nanostructures and their field-emission applications. Journal of Materials Chemistry, 2008, 18, 509-522.	6.7	586
63	Ultra Narrow PbS Nanorods with Intense Fluorescence. Journal of the American Chemical Society, 2008, 130, 4594-4595.	13.7	83
64	Synthesis, Structure, and Multiply Enhanced Field-Emission Properties of Branched ZnS Nanotubeâ^'In Nanowire Coreâ^'Shell Heterostructures. ACS Nano, 2008, 2, 1015-1021.	14.6	187
65	Structure and Cathodoluminescence of Individual ZnS/ZnO Biaxial Nanobelt Heterostructures. Nano Letters, 2008, 8, 2794-2799.	9.1	185
66	Multiangular Branched ZnS Nanostructures with Needle-Shaped Tips:â€‰ Potential Luminescent and Field-Emitter Nanomaterial. Journal of Physical Chemistry C, 2008, 112, 4735-4742.	3.1	89
67	Ultra-Thin Crystalline Films of CdSe and CuSe Formed at the Organic-Aqueous Interface. Journal of Nanoscience and Nanotechnology, 2007, 7, 1916-1922.	0.9	21
68	A simple synthesis and characterization of CuS nanocrystals. Bulletin of Materials Science, 2006, 29, 1-5.	1.7	47
69	Soft chemical approaches to inorganic nanostructures. Pure and Applied Chemistry, 2006, 78, 1619-1650.	1.9	26
70	Scanning tunneling microscopy and spectroscopy of Se and Te nanorods. Solid State Communications, 2005, 136, 169-172.	1.9	2
71	Use of the liquidâ€“liquid interface for generating ultrathin nanocrystalline films of metals, chalcogenides, and oxides. Journal of Colloid and Interface Science, 2005, 289, 305-318.	9.4	118
72	Soft chemical routes to semiconductor nanostructures. Pramana - Journal of Physics, 2005, 65, 549-564.	1.8	11

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73	GaS and GaSe nanowalls and their transformation to Ga2O3 and GaN nanowalls. Chemical Communications, 2005, , 3995.	4.1	40
74	Generation of Onions and Nanotubes of GaS and GaSe through Laser and Thermally Induced Exfoliation. Journal of the American Chemical Society, 2005, 127, 3658-3659.	13.7	103
75	Preparation of PbS and PbSe nanocrystals by a new solvothermal route. Materials Research Bulletin, 2004, 39, 669-676.	5.2	40
76	Controlled synthesis of crystalline tellurium nanorods, nanowires, nanobelts and related structures by a self-seeding solution process. Journal of Materials Chemistry, 2004, 14, 2530.	6.7	192
77	Template-Free Chemical Route to Ultrathin Single-Crystalline Films of CuS and CuO Employing the Liquidâ"Liquid Interface. Langmuir, 2004, 20, 10775-10778.	3.5	78
78	A strategy for the synthesis of nanocrystal films of metal chalcogenides and oxides by employing the liquidâ€"liquid interface. Chemical Physics Letters, 2003, 381, 1-6.	2.6	48
79	A solvothermal route to CdS nanocrystals. Chemical Physics Letters, 2003, 375, 560-564.	2.6	38
80	New strategies for the synthesis of t-selenium nanorods and nanowires. Journal of Materials Chemistry, 2003, 13, 2845.	6.7	74
81	Solvothermal routes to capped oxide and chalcogenide nanoparticles. Pure and Applied Chemistry, 2002, 74, 1643-1649.	1.9	25
82	Magnetic and transport properties, and electronic structure of the layered chalcogenide AgCrSe2. Solid State Communications, 2002, 122, 607-612.	1.9	20
83	A solvothermal route to capped CdSe nanoparticles. Chemical Communications, 2001, , 629-630.	4.1	58