Pawan Kumar

List of Publications by Citations

83 papers	2,662 citations	31 h-index	50 g-index
90 ext. papers	3,356 ext. citations	7.8 avg, IF	5.51 L-index

#	Paper	IF	Citations
83	Reduced graphene oxide□CuO nanocomposites for photocatalytic conversion of CO2 into methanol under visible light irradiation. *Applied Catalysis B: Environmental*, **2016**, 181, 352-362	21.8	218
82	CN: A Low Bandgap Semiconductor Containing an Azo-Linked Carbon Nitride Framework for Photocatalytic, Photovoltaic and Adsorbent Applications. *Journal of the American Chemical Society*, **2019**, 141, 5415-5436	16.4	208
81	Sunlight-driven water-splitting using two-dimensional carbon based semiconductors. *Journal of Materials Chemistry A*, **2018**, 6, 12876-12931	13	159
80	Cobalt phthalocyanine immobilized on graphene oxide: an efficient visible-active catalyst for the photoreduction of carbon dioxide. *Chemistry - A European Journal*, **2014**, 20, 6154-61	4.8	106
79	High rate CO2 photoreduction using flame annealed TiO2 nanotubes. *Applied Catalysis B: Environmental*, **2019**, 243, 522-536	21.8	88
78	Core□shell structured reduced graphene oxide wrapped magnetically separable rGO@CuZnO@Fe3O4 microspheres as superior photocatalyst for CO2 reduction under visible light. *Applied Catalysis B: Environmental*, **2017**, 205, 654-665	21.8	82
77	Enhanced charge separation in g-C3N4□BiOI heterostructures for visible light driven photoelectrochemical water splitting. *Nanoscale Advances*, **2019**, 1, 1460-1471	5.1	77
76	Mixed-Valence Single-Atom Catalyst Derived from Functionalized Graphene. *Advanced Materials*, **2019**, 31, e1900323	24	76
75	Visible light assisted photocatalytic reduction of CO2 using a graphene oxide supported heteroleptic ruthenium complex. *Green Chemistry*, **2015**, 17, 1605-1609	10	70
74	PEGylated magnetic nanoparticles (PEG@Fe 3 O 4) as cost effective alternative for oxidative cyanation of tertiary amines via C H activation. *Applied Catalysis A: General*, **2015**, 498, 25-31	5.1	67
73	A [Fe(bpy)3]2+ grafted graphitic carbon nitride hybrid for visible light assisted oxidative coupling of benzylamines under mild reaction conditions. *Green Chemistry*, **2016**, 18, 2514-2521	10	63
72	Photocatalytic reduction of carbon dioxide to methanol using a ruthenium trinuclear polyazine complex immobilized on graphene oxide under visible light irradiation. *Journal of Materials Chemistry A*, **2014**, 2, 11246	13	63
71	Visible light driven photocatalytic oxidation of thiols to disulfides using iron phthalocyanine immobilized on graphene oxide as a catalyst under alkali free conditions. *RSC Advances*, **2014**, 4, 50331-50337	3.7	59
70	Hexamolybdenum clusters supported on graphene oxide: Visible-light induced photocatalytic reduction of carbon dioxide into methanol. *Carbon*, **2015**, 94, 91-100	10.4	58
69	Nickel Decorated on Phosphorous-Doped Carbon Nitride as an Efficient Photocatalyst for Reduction of Nitrobenzenes. *Nanomaterials*, **2016**, 6,	5.4	58
68	Metal-organic hybrid: Photoreduction of CO2 using graphitic carbon nitride supported heteroleptic iridium complex under visible light irradiation. *Carbon*, **2017**, 123, 371-379	10.4	57
67	Optical control of selectivity of high rate CO2 photoreduction via interband- or hot electron Z-scheme reaction pathways in Au-TiO2 plasmonic photonic crystal photocatalyst. *Applied Catalysis B: Environmental*, **2020**, 267, 118644	21.8	56

66	Arrays of TiO2 nanorods embedded with fluorine doped carbon nitride quantum dots (CNFQDs) for visible light driven water splitting. *Carbon*, **2018**, 137, 174-187	10.4	50
65	Photoreduction of CO2 to methanol with hexanuclear molybdenum [Mo6Br14]2− cluster units under visible light irradiation. *RSC Advances*, **2014**, 4, 10420	3.7	46
64	A novel Ru/TiO2 hybrid nanocomposite catalyzed photoreduction of CO2 to methanol under visible light. *Nanoscale*, **2015**, 7, 15258-67	7.7	45
63	Visible light-induced surface initiated atom transfer radical polymerization of methyl methacrylate on titania/reduced graphene oxide nanocomposite. *RSC Advances*, **2015**, 5, 21189-21196	3.7	45
62	Visible Light Assisted Photocatalytic [3 + 2] Azide−Alkyne "Click" Reaction for the Synthesis of 1,4-Substituted 1,2,3-Triazoles Using a Novel Bimetallic Ru−Mn Complex. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 69-75	8.3	41
61	A TiO2 immobilized Ru(II) polyazine complex: a visible-light active photoredox catalyst for oxidative cyanation of tertiary amines. *Journal of Materials Chemistry A*, **2014**, 2, 4514	13	40
60	Nitrogen-doped graphene-supported copper complex: a novel photocatalyst for CO2 reduction under visible light irradiation. *RSC Advances*, **2015**, 5, 54929-54935	3.7	38
59	Magnetic Fe3O4@MgAl−LDH composite grafted with cobalt phthalocyanine as an efficient heterogeneous catalyst for the oxidation of mercaptans. *Journal of Molecular Catalysis A*, **2015**, 401, 48-54		35
58	Cobalt-entrenched N-, O-, and S-tridoped carbons as efficient multifunctional sustainable catalysts for base-free selective oxidative esterification of alcohols. *Green Chemistry*, **2018**, 20, 3542-3556	10	35
57	Noble Metal Free, Visible Light Driven Photocatalysis Using TiO2 Nanotube Arrays Sensitized by P-Doped C3N4 Quantum Dots. *Advanced Optical Materials*, **2020**, 8, 1901275	8.1	34
56	Visible light assisted reduction of nitrobenzenes using Fe(bpy)3+2/rGO nanocomposite as photocatalyst. *Applied Surface Science*, **2016**, 386, 103-114	6.7	33
55	Consistently High Values in p-i-n Type Perovskite Solar Cells Using Ni-Doped NiO Nanomesh as the Hole Transporting Layer. *ACS Applied Materials & Interfaces*, **2020**, 12, 11467-11478	9.5	33
54	Synthesis of flower-like magnetite nanoassembly: Application in the efficient reduction of nitroarenes. *Scientific Reports*, **2017**, 7, 11585	4.9	32
53	Graphene oxide immobilized copper phthalocyanine tetrasulphonamide: the first heterogenized homogeneous catalyst for dimethylcarbonate synthesis from CO2 and methanol. *Journal of Materials Chemistry A*, **2014**, 2, 18861-18866	13	31
52	Seven-coordinated chiral uranyl(VI) salen complex as effective catalyst for C–H bond activation of dialkylanilines under visible light. *Polyhedron*, **2017**, 124, 177-183	2.7	30
51	Organic inorganic hybrid cobalt phthalocyanine/polyaniline as efficient catalyst for aerobic oxidation of alcohols in liquid phase. *Tetrahedron Letters*, **2015**, 56, 3948-3953	2	27
50	Graphene oxide grafted with iridium complex as a superior heterogeneous catalyst for chemical fixation of carbon dioxide to dimethylformamide. *Carbon*, **2016**, 100, 632-640	10.4	26
49	Heterostructured nanocomposite tin phthalocyanine@mesoporous ceria (SnPc@CeO2) for photoreduction of CO2 in visible light. *RSC Advances*, **2015**, 5, 42414-42421	3.7	25

48	Flexible and Ultrasoft Inorganic 1D Semiconductor and Heterostructure Systems Based on SnIP. *Advanced Functional Materials*, **2019**, 29, 1900233	15.6	22
47	Light-induced controlled free radical polymerization of methacrylates using iron-based photocatalyst in visible light. *Journal of Polymer Science Part A*, **2015**, 53, 2739-2746	2.5	22
46	A surface plasmon laser. *Journal of Applied Physics*, **2008**, 104, 033306	2.5	22
45	A Prussian blue/carbon dot nanocomposite as an efficient visible light active photocatalyst for C-H activation of amines. *Photochemical and Photobiological Sciences*, **2016**, 15, 1282-1288	4.2	21
44	A ruthenium-carbamato-complex derived from a siloxylated amine and carbon dioxide for the oxidative □-cyanation of aromatic and cyclic tertiary amines. *RSC Advances*, **2013**, 3, 24013	3.7	20
43	Octahedral rhenium K4[Re6S8(CN)6] and Cu(OH)2 cluster modified TiO2 for the photoreduction of CO2 under visible light irradiation. *Applied Catalysis A: General*, **2015**, 499, 32-38	5.1	19
42	Sustainable Synthesis of Nanoscale Zerovalent Iron Particles for Environmental Remediation. *ChemSusChem*, **2020**, 13, 3288-3305	8.3	19
41	Carbon Nitride Grafted Cobalt Complex (Co@npg-C3N4) for Visible Light□Assisted Esterification of Aldehydes. *ChemistrySelect*, **2017**, 2, 3437-3443	1.8	18
40	Robust Polymer Nanocomposite Membranes Incorporating Discrete TiO Nanotubes for Water Treatment. *Nanomaterials*, **2019**, 9,	5.4	18
39	Vapor Deposition of Semiconducting Phosphorus Allotropes into TiO2 Nanotube Arrays for Photoelectrocatalytic Water Splitting. *ACS Applied Nano Materials*, **2019**, 2, 3358-3367	5.6	17
38	Asymmetric Multipole Plasmon-Mediated Catalysis Shifts the Product Selectivity of CO Photoreduction toward C Products. *ACS Applied Materials & Interfaces*, **2021**, 13, 7248-7258	9.5	16
37	Nanophotonic enhancement and improved electron extraction in perovskite solar cells using near-horizontally aligned TiO2 nanorods. *Journal of Power Sources*, **2019**, 417, 176-187	8.9	14
36	Boosting Photocatalytic Activity Using Carbon Nitride Based 2D/2D van der Waals Heterojunctions. *Chemistry of Materials*,	9.6	14
35	Heterojunctions of halogen-doped carbon nitride nanosheets and BiOI for sunlight-driven water-splitting. *Nanotechnology*, **2019**, 31, 084001	3.4	14
34	Photo-induced reduction of CO2 using a magnetically separable Ru-CoPc@TiO2@SiO2@Fe3O4 catalyst under visible light irradiation. *Dalton Transactions*, **2015**, 44, 4546-53	4.3	13
33	Threshold hydrophobicity for inhibition of salt scale formation on SAM-modified titania nanotube arrays. *Applied Surface Science*, **2019**, 473, 282-290	6.7	13
32	Coproduction of hydrogen and lactic acid from glucose photocatalysis on band-engineered ZnCdS homojunction. *IScience*, **2021**, 24, 102109	6.1	13
31	Resistance of Superhydrophobic Surface-Functionalized TiO□Nanotubes to Corrosion and Intense Cavitation. *Nanomaterials*, **2018**, 8,	5.4	13

30	A bridged ruthenium dimer (RuRu) for photoreduction of CO2 under visible light irradiation. *Journal of Industrial and Engineering Chemistry*, **2018**, 61, 381-387	6.3	11
29	Photo-assisted oxidation of thiols to disulfides using cobalt Nanorust under visible light. *New Journal of Chemistry*, **2015**, 39, 6193-6200	3.6	11
28	Photocatalytic Mechanism Control and Study of Carrier Dynamics in CdS@CN Core-Shell Nanowires. *ACS Applied Materials & Interfaces*, **2021**, 13, 47418-47439	9.5	11
27	The effect of oxygen flow rate on metal nsulator transition (MIT) characteristics of vanadium dioxide (VO2) thin films by pulsed laser deposition (PLD). *Applied Surface Science*, **2020**, 529, 146995	6.7	10
26	Remarkable self-organization and unusual conductivity behavior in cellulose nanocrystal-PEDOT: PSS nanocomposites. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 1390-1399	2.1	10
25	Harvesting Hot Holes in Plasmon-Coupled Ultrathin Photoanodes for High-Performance Photoelectrochemical Water Splitting. *ACS Applied Materials & Interfaces*, **2021**, 13, 42741-42752	9.5	9
24	Visible light assisted hydrogen generation from complete decomposition of hydrous hydrazine using rhodium modified TiO photocatalysts. *Photochemical and Photobiological Sciences*, **2017**, 16, 1036-1042	4.2	8
23	Vapor growth of binary and ternary phosphorus-based semiconductors into TiO2 nanotube arrays and application in visible light driven water splitting. *Nanoscale Advances*, **2019**, 1, 2881-2890	5.1	8
22	Polymeric carbon nitride-based photocatalysts for photoreforming of biomass derivatives. *Green Chemistry*,	10	7
21	Microfabrication of the Ammonia Plasma-Activated Nickel Nitride Nickel Thin Film for Overall Water Splitting in the Microfluidic Membraneless Electrolyzer. *ACS Applied Energy Materials*, **2021**, 4, 9639-9652	6.1	7
20	Single Atom Catalysts for Selective Methane Oxidation to Oxygenates. *ACS Nano*,	16.7	7
19	CVD grown nitrogen doped graphene is an exceptional visible-light driven photocatalyst for surface catalytic reactions. *2D Materials*, **2020**, 7, 015002	5.9	6
18	Single-Atom Catalysis: Mixed-Valence Single-Atom Catalyst Derived from Functionalized Graphene (Adv. Mater. 17/2019). *Advanced Materials*, **2019**, 31, 1970125	24	5
17	Revealing and Attenuating the Electrostatic Properties of Tubulin and Its Polymers. *Small*, **2021**, 17, e2003560	13	5
16	Synthesis and Characterization of Zinc Phthalocyanine-Cellulose Nanocrystal (CNC) Conjugates: Toward Highly Functional CNCs. *ACS Applied Materials & Interfaces*, **2020**, 12, 43992-44006	9.5	4
15	A graphene/hemin hybrid material as an efficient green catalyst for stereoselective olefination of aldehydes. *RSC Advances*, **2015**, 5, 100011-100017	3.7	4
14	Kinetics and feasibility studies of thiol oxidation using magnetically separable Mg-Al layered double hydroxide supported cobalt phthalocyanine catalyst. *Fuel Processing Technology*, **2017**, 162, 135-146	7.2	3
13	Microwave-assisted synthesis, characterization, and antimicrobial activity of some odorant Schiff bases derived from naturally occurring carbonyl compounds and anthranilic acid. *Synthetic Communications*, **2016**, 46, 2053-2062	1.7	3

12	Nanostructured Composite Materials for CO2 Activation **2019**, 174-200		2
11	Mapping the surface potential, charge density and adhesion of cellulose nanocrystals using advanced scanning probe microscopy. *Carbohydrate Polymers*, **2020**, 246, 116393	10.3	2
10	GrapheneSemiconductor Hybrid Photocatalysts and Their Application in Solar Fuel Production **2016**, 353-386		2
9	Effect of morphology on the photoelectrochemical performance of nanostructured CuO photocathodes. *Nanotechnology*, **2021**, 32,	3.4	1
8	All-solid-state formation of titania nanotube arrays and their application in photoelectrochemical water splitting. *Journal of Materials Science: Materials in Electronics*, **2018**, 29, 16590-16597	2.1	1
7	TiO2-HfN Radial Nano-Heterojunction: A Hot Carrier Photoanode for Sunlight-Driven Water-Splitting. *Catalysts*, **2021**, 11, 1374	4	1
6	Rapid and Efficient Synthesis, Characterization and Antimicrobial Activity of Some Methylanthranilate Derived Odorant Schiff Bases. *Letters in Organic Chemistry*, **2018**, 15, 620-626	0.6	1
5	Water-splitting photoelectrodes consisting of heterojunctions of carbon nitride with a-type low bandgap double perovskite oxide. *Nanotechnology*, **2021**, 32,	3.4	1
4	Single-atom catalysts for biomass-derived drop-in chemicals **2022**, 63-100		1
3	Air- and water-stable halide perovskite nanocrystals protected with nearly-monolayer carbon nitride for CO2 photoreduction and water splitting. *Applied Surface Science*, **2022**, 592, 153276	6.7	1
2	Hot hole transfer from Ag nanoparticles to multiferroic YMn2O5 nanowires enables superior photocatalytic activity. *Journal of Materials Chemistry C*, **2022**, 10, 4128-4139	7.1	0
1	Hybrid Materials: Flexible and Ultrasoft Inorganic 1D Semiconductor and Heterostructure Systems Based on SnIP (Adv. Funct. Mater. 18/2019). *Advanced Functional Materials*, **2019**, 29, 1970120	15.6	