

Pawan Kumar

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Single-atom catalysts for biomass-derived drop-in chemicals 2022 , 63-100		1
82	Hot hole transfer from Ag nanoparticles to multiferroic YMn ₂ O ₅ nanowires enables superior photocatalytic activity. <i>Journal of Materials Chemistry C</i> , 2022 , 10, 4128-4139	7.1	0
81	Air- and water-stable halide perovskite nanocrystals protected with nearly-monolayer carbon nitride for CO ₂ photoreduction and water splitting. <i>Applied Surface Science</i> , 2022 , 592, 153276	6.7	1
80	Effect of morphology on the photoelectrochemical performance of nanostructured CuO photocathodes. <i>Nanotechnology</i> , 2021 , 32,	3.4	1
79	TiO ₂ -HfN Radial Nano-Heterojunction: A Hot Carrier Photoanode for Sunlight-Driven Water-Splitting. <i>Catalysts</i> , 2021 , 11, 1374	4	1
78	Photocatalytic Mechanism Control and Study of Carrier Dynamics in CdS@CN Core-Shell Nanowires. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 47418-47439	9.5	11
77	Revealing and Attenuating the Electrostatic Properties of Tubulin and Its Polymers. <i>Small</i> , 2021 , 17, e2003560	5	5
76	Asymmetric Multipole Plasmon-Mediated Catalysis Shifts the Product Selectivity of CO Photoreduction toward C Products. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 7248-7258	9.5	16
75	Coproduction of hydrogen and lactic acid from glucose photocatalysis on band-engineered ZnCdS homojunction. <i>IScience</i> , 2021 , 24, 102109	6.1	13
74	Water-splitting photoelectrodes consisting of heterojunctions of carbon nitride with a-type low bandgap double perovskite oxide. <i>Nanotechnology</i> , 2021 , 32,	3.4	1
73	Microfabrication of the Ammonia Plasma-Activated Nickel Nitride/Nickel Thin Film for Overall Water Splitting in the Microfluidic Membraneless Electrolyzer. <i>ACS Applied Energy Materials</i> , 2021 , 4, 9639-9652	6.1	7
72	Harvesting Hot Holes in Plasmon-Coupled Ultrathin Photoanodes for High-Performance Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 42741-42752	9.5	9
71	Synthesis and Characterization of Zinc Phthalocyanine-Cellulose Nanocrystal (CNC) Conjugates: Toward Highly Functional CNCs. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 43992-44006	9.5	4
70	The effect of oxygen flow rate on metal-insulator transition (MIT) characteristics of vanadium dioxide (VO ₂) thin films by pulsed laser deposition (PLD). <i>Applied Surface Science</i> , 2020 , 529, 146995	6.7	10
69	Optical control of selectivity of high rate CO ₂ photoreduction via interband- or hot electron Z-scheme reaction pathways in Au-TiO ₂ plasmonic photonic crystal photocatalyst. <i>Applied Catalysis B: Environmental</i> , 2020 , 267, 118644	21.8	56
68	Sustainable Synthesis of Nanoscale Zerovalent Iron Particles for Environmental Remediation. <i>ChemSusChem</i> , 2020 , 13, 3288-3305	8.3	19
67	Mapping the surface potential, charge density and adhesion of cellulose nanocrystals using advanced scanning probe microscopy. <i>Carbohydrate Polymers</i> , 2020 , 246, 116393	10.3	2

66	CVD grown nitrogen doped graphene is an exceptional visible-light driven photocatalyst for surface catalytic reactions. <i>2D Materials</i> , 2020 , 7, 015002	5.9	6
65	Consistently High Values in p-i-n Type Perovskite Solar Cells Using Ni-Doped NiO Nanomesh as the Hole Transporting Layer. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 11467-11478	9.5	33
64	Noble Metal Free, Visible Light Driven Photocatalysis Using TiO ₂ Nanotube Arrays Sensitized by P-Doped C ₃ N ₄ Quantum Dots. <i>Advanced Optical Materials</i> , 2020 , 8, 1901275	8.1	34
63	Enhanced charge separation in g-C ₃ N ₄ BiOI heterostructures for visible light driven photoelectrochemical water splitting. <i>Nanoscale Advances</i> , 2019 , 1, 1460-1471	5.1	77
62	Vapor growth of binary and ternary phosphorus-based semiconductors into TiO ₂ nanotube arrays and application in visible light driven water splitting. <i>Nanoscale Advances</i> , 2019 , 1, 2881-2890	5.1	8
61	Vapor Deposition of Semiconducting Phosphorus Allotropes into TiO ₂ Nanotube Arrays for Photoelectrocatalytic Water Splitting. <i>ACS Applied Nano Materials</i> , 2019 , 2, 3358-3367	5.6	17
60	Single-Atom Catalysis: Mixed-Valence Single-Atom Catalyst Derived from Functionalized Graphene (Adv. Mater. 17/2019). <i>Advanced Materials</i> , 2019 , 31, 1970125	24	5
59	Hybrid Materials: Flexible and Ultrasoft Inorganic 1D Semiconductor and Heterostructure Systems Based on SnIP (Adv. Funct. Mater. 18/2019). <i>Advanced Functional Materials</i> , 2019 , 29, 1970120	15.6	
58	Flexible and Ultrasoft Inorganic 1D Semiconductor and Heterostructure Systems Based on SnIP. <i>Advanced Functional Materials</i> , 2019 , 29, 1900233	15.6	22
57	Nanophotonic enhancement and improved electron extraction in perovskite solar cells using near-horizontally aligned TiO ₂ nanorods. <i>Journal of Power Sources</i> , 2019 , 417, 176-187	8.9	14
56	Mixed-Valence Single-Atom Catalyst Derived from Functionalized Graphene. <i>Advanced Materials</i> , 2019 , 31, e1900323	24	76
55	High rate CO ₂ photoreduction using flame annealed TiO ₂ nanotubes. <i>Applied Catalysis B: Environmental</i> , 2019 , 243, 522-536	21.8	88
54	Robust Polymer Nanocomposite Membranes Incorporating Discrete TiO Nanotubes for Water Treatment. <i>Nanomaterials</i> , 2019 , 9,	5.4	18
53	Nanostructured Composite Materials for CO ₂ Activation 2019 , 174-200		2
52	CN: A Low Bandgap Semiconductor Containing an Azo-Linked Carbon Nitride Framework for Photocatalytic, Photovoltaic and Adsorbent Applications. <i>Journal of the American Chemical Society</i> , 2019 , 141, 5415-5436	16.4	208
51	Remarkable self-organization and unusual conductivity behavior in cellulose nanocrystal-PEDOT: PSS nanocomposites. <i>Journal of Materials Science: Materials in Electronics</i> , 2019 , 30, 1390-1399	2.1	10
50	Threshold hydrophobicity for inhibition of salt scale formation on SAM-modified titania nanotube arrays. <i>Applied Surface Science</i> , 2019 , 473, 282-290	6.7	13
49	Heterojunctions of halogen-doped carbon nitride nanosheets and BiOI for sunlight-driven water-splitting. <i>Nanotechnology</i> , 2019 , 31, 084001	3.4	14

48	A bridged ruthenium dimer (Ru ₂) for photoreduction of CO ₂ under visible light irradiation. <i>Journal of Industrial and Engineering Chemistry</i> , 2018 , 61, 381-387	6.3	11
47	All-solid-state formation of titania nanotube arrays and their application in photoelectrochemical water splitting. <i>Journal of Materials Science: Materials in Electronics</i> , 2018 , 29, 16590-16597	2.1	1
46	Cobalt-entrenched N-, O-, and S-tridoped carbons as efficient multifunctional sustainable catalysts for base-free selective oxidative esterification of alcohols. <i>Green Chemistry</i> , 2018 , 20, 3542-3556	10	35
45	Rapid and Efficient Synthesis, Characterization and Antimicrobial Activity of Some Methylantranilate Derived Odorant Schiff Bases. <i>Letters in Organic Chemistry</i> , 2018 , 15, 620-626	0.6	1
44	Resistance of Superhydrophobic Surface-Functionalized TiO ₂ Nanotubes to Corrosion and Intense Cavitation. <i>Nanomaterials</i> , 2018 , 8,	5.4	13
43	Sunlight-driven water-splitting using two-dimensional carbon based semiconductors. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 12876-12931	13	159
42	Arrays of TiO ₂ nanorods embedded with fluorine doped carbon nitride quantum dots (CNFQDs) for visible light driven water splitting. <i>Carbon</i> , 2018 , 137, 174-187	10.4	50
41	Seven-coordinated chiral uranyl(VI) salen complex as effective catalyst for C-H bond activation of dialkylanilines under visible light. <i>Polyhedron</i> , 2017 , 124, 177-183	2.7	30
40	Kinetics and feasibility studies of thiol oxidation using magnetically separable Mg-Al layered double hydroxide supported cobalt phthalocyanine catalyst. <i>Fuel Processing Technology</i> , 2017 , 162, 135-146	7.2	3
39	Carbon Nitride Grafted Cobalt Complex (Co@npg-C ₃ N ₄) for Visible Light Assisted Esterification of Aldehydes. <i>ChemistrySelect</i> , 2017 , 2, 3437-3443	1.8	18
38	Core-shell structured reduced graphene oxide wrapped magnetically separable rGO@CuZnO@Fe ₃ O ₄ microspheres as superior photocatalyst for CO ₂ reduction under visible light. <i>Applied Catalysis B: Environmental</i> , 2017 , 205, 654-665	21.8	82
37	Visible light assisted hydrogen generation from complete decomposition of hydrous hydrazine using rhodium modified TiO photocatalysts. <i>Photochemical and Photobiological Sciences</i> , 2017 , 16, 1036-1042	4.2	8
36	Synthesis of flower-like magnetite nanoassembly: Application in the efficient reduction of nitroarenes. <i>Scientific Reports</i> , 2017 , 7, 11585	4.9	32
35	Metal-organic hybrid: Photoreduction of CO ₂ using graphitic carbon nitride supported heteroleptic iridium complex under visible light irradiation. <i>Carbon</i> , 2017 , 123, 371-379	10.4	57
34	Reduced graphene oxide/CuO nanocomposites for photocatalytic conversion of CO ₂ into methanol under visible light irradiation. <i>Applied Catalysis B: Environmental</i> , 2016 , 181, 352-362	21.8	218
33	A Prussian blue/carbon dot nanocomposite as an efficient visible light active photocatalyst for C-H activation of amines. <i>Photochemical and Photobiological Sciences</i> , 2016 , 15, 1282-1288	4.2	21
32	Microwave-assisted synthesis, characterization, and antimicrobial activity of some odorant Schiff bases derived from naturally occurring carbonyl compounds and anthranilic acid. <i>Synthetic Communications</i> , 2016 , 46, 2053-2062	1.7	3
31	Visible light assisted reduction of nitrobenzenes using Fe(bpy) ₃ ²⁺ /rGO nanocomposite as photocatalyst. <i>Applied Surface Science</i> , 2016 , 386, 103-114	6.7	33

30	Graphene oxide grafted with iridium complex as a superior heterogeneous catalyst for chemical fixation of carbon dioxide to dimethylformamide. <i>Carbon</i> , 2016 , 100, 632-640	10.4	26
29	A [Fe(bpy) ₃] ²⁺ grafted graphitic carbon nitride hybrid for visible light assisted oxidative coupling of benzylamines under mild reaction conditions. <i>Green Chemistry</i> , 2016 , 18, 2514-2521	10	63
28	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. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 69-75	8.3	41
27	Nickel Decorated on Phosphorous-Doped Carbon Nitride as an Efficient Photocatalyst for Reduction of Nitrobenzenes. <i>Nanomaterials</i> , 2016 , 6,	5.4	58
26	Graphene-Semiconductor Hybrid Photocatalysts and Their Application in Solar Fuel Production 2016 , 353-386		2
25	Magnetic Fe ₃ O ₄ @MgAl ₂ OH composite grafted with cobalt phthalocyanine as an efficient heterogeneous catalyst for the oxidation of mercaptans. <i>Journal of Molecular Catalysis A</i> , 2015 , 401, 48-54		35
24	Nitrogen-doped graphene-supported copper complex: a novel photocatalyst for CO ₂ reduction under visible light irradiation. <i>RSC Advances</i> , 2015 , 5, 54929-54935	3.7	38
23	Hexamolybdenum clusters supported on graphene oxide: Visible-light induced photocatalytic reduction of carbon dioxide into methanol. <i>Carbon</i> , 2015 , 94, 91-100	10.4	58
22	Octahedral rhenium K ₄ [Re ₆ S ₈ (CN) ₆] and Cu(OH) ₂ cluster modified TiO ₂ for the photoreduction of CO ₂ under visible light irradiation. <i>Applied Catalysis A: General</i> , 2015 , 499, 32-38	5.1	19
21	Heterostructured nanocomposite tin phthalocyanine@mesoporous ceria (SnPc@CeO ₂) for photoreduction of CO ₂ in visible light. <i>RSC Advances</i> , 2015 , 5, 42414-42421	3.7	25
20	PEGylated magnetic nanoparticles (PEG@Fe ₃ O ₄) as cost effective alternative for oxidative cyanation of tertiary amines via C-H activation. <i>Applied Catalysis A: General</i> , 2015 , 498, 25-31	5.1	67
19	A novel Ru/TiO ₂ hybrid nanocomposite catalyzed photoreduction of CO ₂ to methanol under visible light. <i>Nanoscale</i> , 2015 , 7, 15258-67	7.7	45
18	Visible light assisted photocatalytic reduction of CO ₂ using a graphene oxide supported heteroleptic ruthenium complex. <i>Green Chemistry</i> , 2015 , 17, 1605-1609	10	70
17	Light-induced controlled free radical polymerization of methacrylates using iron-based photocatalyst in visible light. <i>Journal of Polymer Science Part A</i> , 2015 , 53, 2739-2746	2.5	22
16	Organic inorganic hybrid cobalt phthalocyanine/polyaniline as efficient catalyst for aerobic oxidation of alcohols in liquid phase. <i>Tetrahedron Letters</i> , 2015 , 56, 3948-3953	2	27
15	Photo-assisted oxidation of thiols to disulfides using cobalt Nanorust Under visible light. <i>New Journal of Chemistry</i> , 2015 , 39, 6193-6200	3.6	11
14	A graphene/hemin hybrid material as an efficient green catalyst for stereoselective olefination of aldehydes. <i>RSC Advances</i> , 2015 , 5, 100011-100017	3.7	4
13	Visible light-induced surface initiated atom transfer radical polymerization of methyl methacrylate on titania/reduced graphene oxide nanocomposite. <i>RSC Advances</i> , 2015 , 5, 21189-21196	3.7	45

12	Photo-induced reduction of CO ₂ using a magnetically separable Ru-CoPc@TiO ₂ @SiO ₂ @Fe ₃ O ₄ catalyst under visible light irradiation. <i>Dalton Transactions</i> , 2015 , 44, 4546-53	4.3	13
11	Photoreduction of CO ₂ to methanol with hexanuclear molybdenum [Mo ₆ Br ₁₄] ₂ cluster units under visible light irradiation. <i>RSC Advances</i> , 2014 , 4, 10420	3.7	46
10	A TiO ₂ immobilized Ru(II) polyazine complex: a visible-light active photoredox catalyst for oxidative cyanation of tertiary amines. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 4514	13	40
9	Graphene oxide immobilized copper phthalocyanine tetrasulphonamide: the first heterogenized homogeneous catalyst for dimethylcarbonate synthesis from CO ₂ and methanol. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 18861-18866	13	31
8	Photocatalytic reduction of carbon dioxide to methanol using a ruthenium trinuclear polyazine complex immobilized on graphene oxide under visible light irradiation. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 11246	13	63
7	Visible light driven photocatalytic oxidation of thiols to disulfides using iron phthalocyanine immobilized on graphene oxide as a catalyst under alkali free conditions. <i>RSC Advances</i> , 2014 , 4, 50331-50337	3.7	59
6	Cobalt phthalocyanine immobilized on graphene oxide: an efficient visible-active catalyst for the photoreduction of carbon dioxide. <i>Chemistry - A European Journal</i> , 2014 , 20, 6154-61	4.8	106
5	A ruthenium-carbamato-complex derived from a siloxylated amine and carbon dioxide for the oxidative cyanation of aromatic and cyclic tertiary amines. <i>RSC Advances</i> , 2013 , 3, 24013	3.7	20
4	A surface plasmon laser. <i>Journal of Applied Physics</i> , 2008 , 104, 033306	2.5	22
3	Boosting Photocatalytic Activity Using Carbon Nitride Based 2D/2D van der Waals Heterojunctions. <i>Chemistry of Materials</i> ,	9.6	14
2	Polymeric carbon nitride-based photocatalysts for photoreforming of biomass derivatives. <i>Green Chemistry</i> ,	10	7
1	Single Atom Catalysts for Selective Methane Oxidation to Oxygenates. <i>ACS Nano</i> ,	16.7	7