Piyush Kar

List of Publications by Year
in descending order

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37	2,085	304368	329751
papers	citations	22 h-index	37 g-index

37	37	37	2968
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	C₃N₅: 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.	6.6	464
2	A review on photocatalytic CO₂reduction using perovskite oxide nanomaterials. Nanotechnology, 2018, 29, 052001.	1.3	192
3	Anodic Cu₂S and CuS nanorod and nanowall arrays: preparation, properties and application in CO₂ photoreduction. Nanoscale, 2014, 6, 14305-14318.	2.8	132
4	Enhanced CH4 yield by photocatalytic CO2 reduction using TiO2 nanotube arrays grafted with Au, Ru, and ZnPd nanoparticles. Nano Research, 2016, 9, 3478-3493.	5.8	126
5	High rate CO2 photoreduction using flame annealed TiO2 nanotubes. Applied Catalysis B: Environmental, 2019, 243, 522-536.	10.8	123
6	Enhanced charge separation in g-C₃N₄â€“BiOI heterostructures for visible light driven photoelectrochemical water splitting. Nanoscale Advances, 2019, 1, 1460-1471.	2.2	115
7	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.	10.8	92
8	Ultrahigh sensitivity assays for human cardiac troponin I using TiO2 nanotube arrays. Lab on A Chip, 2012, 12, 821.	3.1	70
9	Arrays of TiO2 nanorods embedded with fluorine doped carbon nitride quantum dots (CNFQDs) for visible light driven water splitting. Carbon, 2018, 137, 174-187.	5.4	70
10	Halide perovskite solar cells using monocrystalline TiO₂nanorod arrays as electron transport layers: impact of nanorod morphology. Nanotechnology, 2017, 28, 274001.	1.3	67
11	Consistently High V_{oc} Values in p-i-n Type Perovskite Solar Cells Using Ni³⁺-Doped NiO Nanomesh as the Hole Transporting Layer. ACS Applied Materials & Interfaces, 2020, 12, 11467-11478.	4.0	48
12	Noble Metal Free, Visible Light Driven Photocatalysis Using TiO 2 Nanotube Arrays Sensitized by Pâ€Doped C 3 N 4 Quantum Dots. Advanced Optical Materials, 2020, 8, 1901275.	3.6	48
13	Transparent Anodic TiO₂ Nanotube Arrays on Plastic Substrates for Disposable Biosensors and Flexible Electronics. Journal of Nanoscience and Nanotechnology, 2013, 13, 2885-2891.	0.9	42
14	Coreâ€“shell titanium dioxideâ€“titanium nitride nanotube arrays with near-infrared plasmon resonances. Nanotechnology, 2018, 29, 154006.	1.3	40
15	Electron Transport, Trapping and Recombination in Anodic TiO₂ Nanotube Arrays. Current Nanoscience, 2015, 11, 593-614.	0.7	38
16	Rutile phase n- and p-type anodic titania nanotube arrays with square-shaped pore morphologies. Chemical Communications, 2015, 51, 7816-7819.	2.2	37
17	Effect of phosphonate monolayer adsorbate on the microwave photoresponse of TiO₂nanotube membranes mounted on a planar double ring resonator. Nanotechnology, 2016, 27, 375201.	1.3	37
18	Effect of sol stabilizer on the structure and electronic properties of solution-processed ZnO thin films. RSC Advances, 2015, 5, 87007-87018.	1.7	35

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19	Ultraviolet sensing using a TiO₂nanotube integrated high resolution planar microwave resonator device. Nanoscale, 2018, 10, 4882-4889.	2.8	34
20	Vapor Deposition of Semiconducting Phosphorus Allotropes into TiO₂ Nanotube Arrays for Photoelectrocatalytic Water Splitting. ACS Applied Nano Materials, 2019, 2, 3358-3367.	2.4	30
21	Response to Alternating Electric Fields of Tubulin Dimers and Microtubule Ensembles in Electrolytic Solutions. Scientific Reports, 2017, 7, 9594.	1.6	28
22	All-solution processed, scalable superhydrophobic coatings on stainless steel surfaces based on functionalized discrete titania nanotubes. Chemical Engineering Journal, 2018, 351, 482-489.	6.6	24
23	Reduced Ensemble Plasmon Line Widths and Enhanced Two-Photon Luminescence in Anodically Formed High Surface Area Auâ€“TiO₂ 3D Nanocomposites. ACS Applied Materials & Interfaces, 2017, 9, 740-749.	4.0	23
24	Heterojunctions of mixed phase TiO₂nanotubes with Cu, CuPt, and Pt nanoparticles: interfacial band alignment and visible light photoelectrochemical activity. Nanotechnology, 2018, 29, 014002.	1.3	22
25	Resistance of Superhydrophobic Surface-Functionalized TiO2 Nanotubes to Corrosion and Intense Cavitation. Nanomaterials, 2018, 8, 783.	1.9	18
26	Nanophotonic enhancement and improved electron extraction in perovskite solar cells using near-horizontally aligned TiO2 nanorods. Journal of Power Sources, 2019, 417, 176-187.	4.0	17
27	Remarkable self-organization and unusual conductivity behavior in cellulose nanocrystal-PEDOT: PSS nanocomposites. Journal of Materials Science: Materials in Electronics, 2019, 30, 1390-1399.	1.1	16
28	Formation and stability of anatase phase of phosphate incorporated and carbon doped titania nanotubes. Materials Research Bulletin, 2009, 44, 398-402.	2.7	15
29	Threshold hydrophobicity for inhibition of salt scale formation on SAM-modified titania nanotube arrays. Applied Surface Science, 2019, 473, 282-290.	3.1	15
30	Optical anisotropy in vertically oriented TiO₂nanotube arrays. Nanotechnology, 2017, 28, 374001.	1.3	14
31	Biodiagnostics Using Oriented and Aligned Inorganic Semiconductor Nanotubes and Nanowires. Journal of Nanoscience and Nanotechnology, 2013, 13, 4473-4496.	0.9	12
32	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.	2.2	11
33	Mapping the surface potential, charge density and adhesion of cellulose nanocrystals using advanced scanning probe microscopy. Carbohydrate Polymers, 2020, 246, 116393.	5.1	9
34	Effect of morphology on the photoelectrochemical performance of nanostructured Cu₂O photocathodes. Nanotechnology, 2021, 32, 374001.	1.3	7
35	Behavior of Î±, Î² tubulin in DMSO-containing electrolytes. Nanoscale Advances, 2019, 1, 3364-3371.	2.2	6
36	Radial Heterojunction Solar Cell Consisting of n-Type Rutile Nanowire Arrays Infiltrated by p-Type CdTe. Journal of Nanoscience and Nanotechnology, 2017, 17, 5119-5123.	0.9	4

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37	Transparent nanoporous P-type NiO films grown directly on non-native substrates by anodization. Journal of Materials Science: Materials in Electronics, 2019, 30, 11327-11335.	1.1	4