Karthik Shankar

List of Publications by Year
in descending order

182 papers	18,548 citations	28274 55 h-index	11939 134 g-index
186 all docs	186 docs citations	186 times ranked	15830 citing authors

#	Article	IF	Citations
1	Use of Highly-Ordered TiO2Nanotube Arrays in Dye-Sensitized Solar Cells. Nano Letters, 2006, 6, 215-218.	9.1	2,144
2	A review on highly ordered, vertically oriented TiO2 nanotube arrays: Fabrication, material properties, and solar energy applications. Solar Energy Materials and Solar Cells, 2006, 90, 2011-2075.	6.2	1,834
3	Vertically Aligned Single Crystal TiO₂ Nanowire Arrays Grown Directly on Transparent Conducting Oxide Coated Glass: Synthesis Details and Applications. Nano Letters, 2008, 8, 3781-3786.	9.1	1,126
4	Enhanced Photocleavage of Water Using Titania Nanotube Arrays. Nano Letters, 2005, 5, 191-195.	9.1	1,093
5	Anodic Growth of Highly Ordered TiO2Nanotube Arrays to 134 Î¼m in Length. Journal of Physical Chemistry B, 2006, 110, 16179-16184.	2.6	831
6	Recent Advances in the Use of TiO₂ Nanotube and Nanowire Arrays for Oxidative Photoelectrochemistry. Journal of Physical Chemistry C, 2009, 113, 6327-6359.	3.1	776
7	Highly-ordered TiO2nanotube arrays up to 220 Âµm in length: use in water photoelectrolysis and dye-sensitized solar cells. Nanotechnology, 2007, 18, 065707.	2.6	683
8	A New Benchmark for TiO2Nanotube Array Growth by Anodization. Journal of Physical Chemistry C, 2007, 111, 7235-7241.	3.1	572
9	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.	13.7	464
10	Vertically Oriented Tiâˆ’Feâˆ’O Nanotube Array Films:â€‰ Toward a Useful Material Architecture for Solar Spectrum Water Photoelectrolysis. Nano Letters, 2007, 7, 2356-2364.	9.1	377
11	High Carrier Density and Capacitance in TiO₂ Nanotube Arrays Induced by Electrochemical Doping. Journal of the American Chemical Society, 2008, 130, 11312-11316.	13.7	368
12	Visible to Near-Infrared Light Harvesting in TiO₂ Nanotube Arrayâˆ’P3HT Based Heterojunction Solar Cells. Nano Letters, 2009, 9, 4250-4257.	9.1	282
13	Application of highly-ordered TiO2nanotube-arrays in heterojunction dye-sensitized solar cells. Journal Physics D: Applied Physics, 2006, 39, 2498-2503.	2.8	280
14	p-Type Cuâˆ’Tiâˆ’O Nanotube Arrays and Their Use in Self-Biased Heterojunction Photoelectrochemical Diodes for Hydrogen Generation. Nano Letters, 2008, 8, 1906-1911.	9.1	278
15	Highly Efficient Solar Cells using TiO₂ Nanotube Arrays Sensitized with a Donor-Antenna Dye. Nano Letters, 2008, 8, 1654-1659.	9.1	275
16	Backside illuminated dye-sensitized solar cells based on titania nanotube array electrodes. Nanotechnology, 2006, 17, 1446-1448.	2.6	268
17	Water-Photolysis Properties of Micron-Length Highly-Ordered Titania Nanotube-Arrays. Journal of Nanoscience and Nanotechnology, 2005, 5, 1158-1165.	0.9	226
18	High efficiency double heterojunction polymer photovoltaic cells using highly ordered TiO2 nanotube arrays. Applied Physics Letters, 2007, 91, .	3.3	215

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19	Photoelectrochemical Properties of Heterojunction CdTe/TiO₂ Electrodes Constructed Using Highly Ordered TiO₂ Nanotube Arrays. Chemistry of Materials, 2008, 20, 5266-5273.	6.7	215
20	Sunlight-driven water-splitting using two-dimensional carbon based semiconductors. Journal of Materials Chemistry A, 2018, 6, 12876-12931.	10.3	215
21	Photoelectrochemical and water photoelectrolysis properties of ordered TiO2 nanotubes fabricated by Ti anodization in fluoride-free HCl electrolytes. Journal of Materials Chemistry, 2008, 18, 2341.	6.7	198
22	Tantalumâ€Doped Titanium Dioxide Nanowire Arrays for Dyeâ€Sensitized Solar Cells with High Openâ€Circuit Voltage. Angewandte Chemie - International Edition, 2009, 48, 8095-8098.	13.8	197
23	Visible light photoelectrochemical and water-photoelectrolysis properties of titania nanotube arrays. Journal of Photochemistry and Photobiology A: Chemistry, 2006, 178, 8-15.	3.9	193
24	A review on photocatalytic CO₂reduction using perovskite oxide nanomaterials. Nanotechnology, 2018, 29, 052001.	2.6	192
25	Self-Assembled Hybrid Polymerâˆ’TiO₂ Nanotube Array Heterojunction Solar Cells. Langmuir, 2007, 23, 12445-12449.	3.5	184
26	Cation Effect on the Electrochemical Formation of Very High Aspect Ratio TiO2Nanotube Arrays in Formamideâˆ’Water Mixtures. Journal of Physical Chemistry C, 2007, 111, 21-26.	3.1	170
27	Photocatalytic Conversion of Diluted CO₂ into Light Hydrocarbons Using Periodically Modulated Multiwalled Nanotube Arrays. Angewandte Chemie - International Edition, 2012, 51, 12732-12735.	13.8	150
28	Coaxing Solidâ€State Phosphorescence from Tellurophenes. Angewandte Chemie - International Edition, 2014, 53, 4587-4591.	13.8	150
29	Enhanced Harvesting of Red Photons in Nanowire Solar Cells: Evidence of Resonance Energy Transfer. ACS Nano, 2009, 3, 788-794.	14.6	148
30	An electrochemical strategy to incorporate nitrogen in nanostructured TiO2thin films: modification of bandgap and photoelectrochemical properties. Journal Physics D: Applied Physics, 2006, 39, 2361-2366.	2.8	146
31	Anodic Cu₂S and CuS nanorod and nanowall arrays: preparation, properties and application in CO₂ photoreduction. Nanoscale, 2014, 6, 14305-14318.	5.6	132
32	Enhanced CH4 yield by photocatalytic CO2 reduction using TiO2 nanotube arrays grafted with Au, Ru, and ZnPd nanoparticles. Nano Research, 2016, 9, 3478-3493.	10.4	126
33	High rate CO2 photoreduction using flame annealed TiO2 nanotubes. Applied Catalysis B: Environmental, 2019, 243, 522-536.	20.2	123
34	Enhanced charge separation in g-C₃N₄â€“BiOI heterostructures for visible light driven photoelectrochemical water splitting. Nanoscale Advances, 2019, 1, 1460-1471.	4.6	115
35	Photoelectrochemical properties of titania nanotubes. Journal of Materials Research, 2004, 19, 2989-2996.	2.6	114
36	A General Method for the Anodic Formation of Crystalline Metal Oxide Nanotube Arrays without the Use of Thermal Annealing. Advanced Materials, 2008, 20, 3942-3946.	21.0	104

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37	Initial Studies on the Hydrogen Gas Sensing Properties of Highly-Ordered High Aspect Ratio TiO₂ Nanotube-Arrays 20 <I>Î¼</I>m to 222 <I>Î¼</I>m in Length. Sensor Letters, 2006, 4, 334-339.	0.4	100
38	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.	20.2	92
39	Plexcitonics â€“ fundamental principles and optoelectronic applications. Journal of Materials Chemistry C, 2019, 7, 1821-1853.	5.5	89
40	Mechanochemical Synthesis of Methylammonium Lead Mixedâ€“Halide Perovskites: Unraveling the Solid-Solution Behavior Using Solid-State NMR. Chemistry of Materials, 2018, 30, 2309-2321.	6.7	85
41	Application of finite-difference time domain to dye-sensitized solar cells: The effect of nanotube-array negative electrode dimensions on light absorption. Solar Energy Materials and Solar Cells, 2007, 91, 250-257.	6.2	84
42	A study on the spectral photoresponse and photoelectrochemical properties of flame-annealed titania nanotube-arrays. Journal Physics D: Applied Physics, 2005, 38, 3543-3549.	2.8	78
43	Multinuclear Magnetic Resonance Tracking of Hydro, Thermal, and Hydrothermal Decomposition of CH₃NH₃PbI₃. Journal of Physical Chemistry C, 2017, 121, 1013-1024.	3.1	77
44	Phosphorescence within benzotellurophenes and color tunable tellurophenes under ambient conditions. Chemical Communications, 2015, 51, 5444-5447.	4.1	74
45	Composition-Tunable Formamidinium Lead Mixed Halide Perovskites via Solvent-Free Mechanochemical Synthesis: Decoding the Pb Environments Using Solid-State NMR Spectroscopy. Journal of Physical Chemistry Letters, 2018, 9, 2671-2677.	4.6	74
46	Interfacial band alignment for photocatalytic charge separation in TiO₂nanotube arrays coated with CuPt nanoparticles. Physical Chemistry Chemical Physics, 2015, 17, 29723-29733.	2.8	72
47	Double peak emission in lead halide perovskites by self-absorption. Journal of Materials Chemistry C, 2020, 8, 2289-2300.	5.5	72
48	Liquid Sensing Using Active Feedback Assisted Planar Microwave Resonator. IEEE Microwave and Wireless Components Letters, 2015, 25, 621-623.	3.2	71
49	Ultrahigh sensitivity assays for human cardiac troponin I using TiO2 nanotube arrays. Lab on A Chip, 2012, 12, 821.	6.0	70
50	Arrays of TiO2 nanorods embedded with fluorine doped carbon nitride quantum dots (CNFQDs) for visible light driven water splitting. Carbon, 2018, 137, 174-187.	10.3	70
51	Effect of device geometry on the performance of TiO2 nanotube array-organic semiconductor double heterojunction solar cells. Journal of Non-Crystalline Solids, 2008, 354, 2767-2771.	3.1	69
52	Selective microwave sensors exploiting the interaction of analytes with trap states in TiO₂nanotube arrays. Nanoscale, 2016, 8, 7466-7473.	5.6	69
53	Halide perovskite solar cells using monocrystalline TiO₂nanorod arrays as electron transport layers: impact of nanorod morphology. Nanotechnology, 2017, 28, 274001.	2.6	67
54	Melanin-based electronics: From proton conductors to photovoltaics and beyond. Biosensors and Bioelectronics, 2018, 122, 127-139.	10.1	60

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55	Anodic Growth of Large-Diameter Multipodal TiO₂ Nanotubes. ACS Nano, 2010, 4, 7421-7430.	14.6	56
56	Zinc oxide thin film transistors with Schottky source barriers. Solid-State Electronics, 2012, 76, 104-108.	1.4	56
57	Consistently High <i>V</i>_{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.	8.0	48
58	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.	7.3	48
59	Photocatalytic Mechanism Control and Study of Carrier Dynamics in CdS@C₃N₅ Coreâ€“Shell Nanowires. ACS Applied Materials & Interfaces, 2021, 13, 47418-47439.	8.0	48
60	Triplet excitons: improving exciton diffusion length for enhanced organic photovoltaics. Journal of Materials Chemistry A, 2019, 7, 2445-2463.	10.3	47
61	Quantification of multiple bioagents with wireless, remote-query magnetoelastic microsensors. IEEE Sensors Journal, 2006, 6, 514-523.	4.7	45
62	Bulk Heterojunction Solar Cells Based on Blends of Conjugated Polymers with IIâ€“VI and IVâ€“VI Inorganic Semiconductor Quantum Dots. Polymers, 2017, 9, 35.	4.5	45
63	Robust Polymer Nanocomposite Membranes Incorporating Discrete TiO2 Nanotubes for Water Treatment. Nanomaterials, 2019, 9, 1186.	4.1	43
64	Morphology and electrical transport in pentacene films on silylated oxide surfaces. Journal of Materials Research, 2004, 19, 2003-2007.	2.6	42
65	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
66	One-Dimensional Electron Transport Layers for Perovskite Solar Cells. Nanomaterials, 2017, 7, 95.	4.1	41
67	Coreâ€“shell titanium dioxideâ€“titanium nitride nanotube arrays with near-infrared plasmon resonances. Nanotechnology, 2018, 29, 154006.	2.6	40
68	Asymmetric Multipole Plasmon-Mediated Catalysis Shifts the Product Selectivity of CO₂ Photoreduction toward C₂₊ Products. ACS Applied Materials & Interfaces, 2021, 13, 7248-7258.	8.0	40
69	Hot Electrons in TiO2â€“Noble Metal Nano-Heterojunctions: Fundamental Science and Applications in Photocatalysis. Nanomaterials, 2021, 11, 1249.	4.1	40
70	Electron Transport, Trapping and Recombination in Anodic TiO₂ Nanotube Arrays. Current Nanoscience, 2015, 11, 593-614.	1.2	38
71	Rutile phase n- and p-type anodic titania nanotube arrays with square-shaped pore morphologies. Chemical Communications, 2015, 51, 7816-7819.	4.1	37
72	Effect of phosphonate monolayer adsorbate on the microwave photoresponse of TiO₂nanotube membranes mounted on a planar double ring resonator. Nanotechnology, 2016, 27, 375201.	2.6	37

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73	Flexible and Ultrasoft Inorganic 1D Semiconductor and Heterostructure Systems Based on SnIP. Advanced Functional Materials, 2019, 29, 1900233.	14.9	37
74	Anodic TiO2 nanotube arrays with optical wavelength-sized apertures. Journal of Materials Chemistry, 2010, 20, 8474.	6.7	36
75	Effect of sol stabilizer on the structure and electronic properties of solution-processed ZnO thin films. RSC Advances, 2015, 5, 87007-87018.	3.6	35
76	Microtubules as Sub-Cellular Memristors. Scientific Reports, 2020, 10, 2108.	3.3	35
77	Ultraviolet sensing using a TiO₂nanotube integrated high resolution planar microwave resonator device. Nanoscale, 2018, 10, 4882-4889.	5.6	34
78	Top-Down Approaches Towards Single Crystal Perovskite Solar Cells. Scientific Reports, 2018, 8, 4906.	3.3	34
79	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.	6.1	31
80	Hierarchical rutile TiO2 aggregates: A high photonic strength material for optical and optoelectronic devices. Acta Materialia, 2016, 119, 92-103.	7.9	30
81	Vapor Deposition of Semiconducting Phosphorus Allotropes into TiO₂ Nanotube Arrays for Photoelectrocatalytic Water Splitting. ACS Applied Nano Materials, 2019, 2, 3358-3367.	5.0	30
82	Response to Alternating Electric Fields of Tubulin Dimers and Microtubule Ensembles in Electrolytic Solutions. Scientific Reports, 2017, 7, 9594.	3.3	28
83	Schottky Barrier Thin Film Transistors Using Solution-Processed <i>n</i>-ZnO. ACS Applied Materials & Interfaces, 2012, 4, 1423-1428.	8.0	27
84	Amphiphobic surfaces from functionalized TiO₂ nanotube arrays. RSC Advances, 2014, 4, 33587-33598.	3.6	25
85	Exciton Binding Energy in Organicâ€"Inorganic Tri-Halide Perovskites. Journal of Nanoscience and Nanotechnology, 2016, 16, 5890-5901.	0.9	24
86	All-solution processed, scalable superhydrophobic coatings on stainless steel surfaces based on functionalized discrete titania nanotubes. Chemical Engineering Journal, 2018, 351, 482-489.	12.7	24
87	Phase Evolution in Methylammonium Tin Halide Perovskites with Variable Temperature Solid-State 119Sn NMR Spectroscopy. Journal of Physical Chemistry C, 2020, 124, 15015-15027.	3.1	24
88	Harvesting Hot Holes in Plasmon-Coupled Ultrathin Photoanodes for High-Performance Photoelectrochemical Water Splitting. ACS Applied Materials & Interfaces, 2021, 13, 42741-42752.	8.0	24
89	100-fold improvement in carrier drift mobilities in alkanephosphonate-passivated monocrystalline TiO₂ nanowire arrays. Nanotechnology, 2017, 28, 144001.	2.6	23
90	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.	8.0	23

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91	Heterojunctions of halogen-doped carbon nitride nanosheets and BiOI for sunlight-driven water-splitting. Nanotechnology, 2020, 31, 084001.	2.6	23
92	Investigating the Tetragonalâ€toâ€Orthorhombic Phase Transition of Methylammonium Lead Iodide Single Crystals by Detailed Photoluminescence Analysis. Advanced Optical Materials, 2020, 8, 2000455.	7.3	23
93	Heterojunctions of mixed phase TiO₂nanotubes with Cu, CuPt, and Pt nanoparticles: interfacial band alignment and visible light photoelectrochemical activity. Nanotechnology, 2018, 29, 014002.	2.6	22
94	A Rational Design of Cu₂Oâˆ’SnO₂ Coreâ€Shell Catalyst for Highly Selective CO₂â€toâ€CO Conversion. ChemCatChem, 2019, 11, 4147-4153.	3.7	22
95	All Wired Up: An Exploration of the Electrical Properties of Microtubules and Tubulin. ACS Nano, 2020, 14, 16301-16320.	14.6	22
96	Synergistic Enhancement of the Photoelectrochemical Performance of TiO₂ Nanorod Arrays through Embedded Plasmon and Surface Carbon Nitride Co-sensitization. ACS Applied Materials & Interfaces, 2022, 14, 24309-24320.	8.0	21
97	Plasmonic photocatalysis and SERS sensing using ellipsometrically modeled Ag nanoisland substrates. Nanotechnology, 2020, 31, 365301.	2.6	19
98	Resistance of Superhydrophobic Surface-Functionalized TiO2 Nanotubes to Corrosion and Intense Cavitation. Nanomaterials, 2018, 8, 783.	4.1	18
99	Toward singleâ€step anodic fabrication of monodisperse TiO₂ nanotube arrays on nonâ€native substrates. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 1113-1121.	1.8	17
100	Distinguishing between Deep Trapping Transients of Electrons and Holes in TiO₂ Nanotube Arrays Using Planar Microwave Resonator Sensor. ACS Applied Materials & Interfaces, 2018, 10, 29857-29865.	8.0	17
101	Nanophotonic enhancement and improved electron extraction in perovskite solar cells using near-horizontally aligned TiO2 nanorods. Journal of Power Sources, 2019, 417, 176-187.	7.8	17
102	Preferentially oriented TiO₂ nanotube arrays on non-native substrates and their improved performance as electron transporting layer in halide perovskite solar cells. Nanotechnology, 2019, 30, 204003.	2.6	17
103	Effect of sulfur-doped graphene quantum dots incorporation on morphological, optical and electron transport properties of CH3NH3PbBr3 perovskite thin films. Journal of Materials Science: Materials in Electronics, 2021, 32, 17406-17417.	2.2	17
104	Majority carrier transport in single crystal rutile nanowire arrays. Physica Status Solidi - Rapid Research Letters, 2014, 8, 512-516.	2.4	16
105	Remarkable self-organization and unusual conductivity behavior in cellulose nanocrystal-PEDOT: PSS nanocomposites. Journal of Materials Science: Materials in Electronics, 2019, 30, 1390-1399.	2.2	16
106	Hexagonal Double Perovskite Cs₂AgCrCl₆. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2019, 645, 323-328.	1.2	16
107	Synthesis and Characterization of Zinc Phthalocyanine-Cellulose Nanocrystal (CNC) Conjugates: Toward Highly Functional CNCs. ACS Applied Materials & Interfaces, 2020, 12, 43992-44006.	8.0	16
108	Synthesis, characterization, and visible light photocatalytic activity of solution-processed free-standing 2D Bi₂O₂Se nanosheets. Nanotechnology, 2021, 32, 485602.	2.6	16

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109	Insights Into the Solution Crystallization of Oriented Alq₃ and Znq₂ Microprisms and Nanorods. Journal of Nanoscience and Nanotechnology, 2015, 15, 6680-6689.	0.9	15
110	Threshold hydrophobicity for inhibition of salt scale formation on SAM-modified titania nanotube arrays. Applied Surface Science, 2019, 473, 282-290.	6.1	15
111	Broad Spectrum Light Harvesting in TiO$_2$ Nanotube Array â€“ Hemicyanine Dye â€“ P3HT Hybrid Solid-State Solar Cells. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1573-1580.	2.9	14
112	Efficient and stable, structurally inverted poly(3-hexylthiopen): [6,6]-phenyl-C61-butyric acid methyl ester heterojunction solar cells with fibrous like poly(3-hexylthiopen). Thin Solid Films, 2011, 520, 582-590.	1.8	14
113	Optical anisotropy in vertically oriented TiO₂nanotube arrays. Nanotechnology, 2017, 28, 374001.	2.6	14
114	High Breakdown Strength Schottky Diodes Made from Electrodeposited ZnO for Power Electronics Applications. ACS Applied Electronic Materials, 2019, 1, 13-17.	4.3	14
115	Investigation of the Electrical Properties of Microtubule Ensembles under Cell-Like Conditions. Nanomaterials, 2020, 10, 265.	4.1	14
116	Artificial Neural Network-Based Prediction of the Optical Properties of Spherical Coreâ€“Shell Plasmonic Metastructures. Nanomaterials, 2021, 11, 633.	4.1	13
117	Water-splitting photoelectrodes consisting of heterojunctions of carbon nitride with a p-type low bandgap double perovskite oxide. Nanotechnology, 2021, 32, 485407.	2.6	13
118	Biodiagnostics Using Oriented and Aligned Inorganic Semiconductor Nanotubes and Nanowires. Journal of Nanoscience and Nanotechnology, 2013, 13, 4473-4496.	0.9	12
119	CVD grown nitrogen doped graphene is an exceptional visible-light driven photocatalyst for surface catalytic reactions. 2D Materials, 2020, 7, 015002.	4.4	12
120	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.	4.6	11
121	Planar microwave resonator with electrodeposited ZnO thin film for ultraviolet detection. Semiconductor Science and Technology, 2020, 35, 025003.	2.0	11
122	Modeling Microtubule Counterion Distributions and Conductivity Using the Poisson-Boltzmann Equation. Frontiers in Molecular Biosciences, 2021, 8, 650757.	3.5	11
123	Increased detection of human cardiac troponin I by a decrease of nonspecific adsorption in diluted self-assembled monolayers. Applied Surface Science, 2012, 258, 5230-5237.	6.1	10
124	Charge transport, doping and luminescence in solution-processed, phosphorescent, air-stable tellurophene thin films. Organic Electronics, 2016, 39, 153-162.	2.6	10
125	Nonlithographic Formation of Ta₂O₅ Nanodimple Arrays Using Electrochemical Anodization and Their Use in Plasmonic Photocatalysis for Enhancement of Local Field and Catalytic Activity. ACS Applied Materials & Interfaces, 2021, 13, 4340-4351.	8.0	10
126	Life cycle assessment of high-performance monocrystalline titanium dioxide nanorod-based perovskite solar cells. Solar Energy Materials and Solar Cells, 2021, 230, 111288.	6.2	10

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127	Prediction of the Active Layer Nanomorphology in Polymer Solar Cells Using Molecular Dynamics Simulation. ACS Applied Materials & Interfaces, 2013, 5, 4617-4624.	8.0	9
128	Unusual Surface Ligand Doping-Induced p-Type Quantum Dot Solids and Their Application in Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 53942-53949.	8.0	9
129	Mapping the surface potential, charge density and adhesion of cellulose nanocrystals using advanced scanning probe microscopy. Carbohydrate Polymers, 2020, 246, 116393.	10.2	9
130	Instantaneous Property Prediction and Inverse Design of Plasmonic Nanostructures Using Machine Learning: Current Applications and Future Directions. Nanomaterials, 2022, 12, 633.	4.1	9
131	Low residual donor concentration and enhanced charge transport in low-cost electrodeposited ZnO. Journal of Materials Chemistry C, 2016, 4, 2279-2283.	5.5	8
132	Anodic copper oxide nanowire and nanopore arrays with mixed phase content: synthesis, characterization and optical limiting response. Journal of Physics Communications, 2017, 1, 045012.	1.2	8
133	TiO2-HfN Radial Nano-Heterojunction: A Hot Carrier Photoanode for Sunlight-Driven Water-Splitting. Catalysts, 2021, 11, 1374.	3.5	8
134	Multipodal and Multilayer TiO2 Nanotube Arrays: Hierarchical Structures for Energy Harvesting and Sensing. Materials Research Society Symposia Proceedings, 2013, 1552, 29-34.	0.1	7
135	High-mobility solution-processed zinc oxide thin films on silicon nitride. Physica Status Solidi - Rapid Research Letters, 2014, 8, 871-875.	2.4	7
136	Effect of morphology on the photoelectrochemical performance of nanostructured Cu₂O photocathodes. Nanotechnology, 2021, 32, 374001.	2.6	7
137	Revealing and Attenuating the Electrostatic Properties of Tubulin and Its Polymers. Small, 2021, 17, 2003560.	10.0	7
138	Zinc phthalocyanine conjugated cellulose nanocrystals for memory device applications. Nanotechnology, 2022, 33, 055703.	2.6	7
139	Hot hole transfer from Ag nanoparticles to multiferroic YMn₂O₅ nanowires enables superior photocatalytic activity. Journal of Materials Chemistry C, 2022, 10, 4128-4139.	5.5	7
140	A Nanometric Probe of the Local Proton Concentration in Microtubule-Based Biophysical Systems. Nano Letters, 2022, 22, 517-523.	9.1	7
141	Magnetic field-assisted electroless anodization: TiO2 nanotube growth on discontinuous, patterned Ti films. Journal of Materials Chemistry A, 2014, 2, 13810-13816.	10.3	6
142	Communicationâ€"High Performance Schottky Diodes on Flexible Substrates Using ZnO Electrodeposited on Cu. ECS Journal of Solid State Science and Technology, 2016, 5, P324-P326.	1.8	6
143	Behavior of Î±, Î² tubulin in DMSO-containing electrolytes. Nanoscale Advances, 2019, 1, 3364-3371.	4.6	6
144	Multiscale modeling of active layer of hybrid organic-inorganic solar cells for photovoltaic applications by means of density functional theory and integral equation theory of molecular liquids. Journal of Molecular Liquids, 2019, 289, 110997.	4.9	6

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145	Photophysics and Energy Transfer Studies of Alq₃ Confined in the Voids of Nanoporous Anodic Alumina. Journal of Nanoscience and Nanotechnology, 2013, 13, 2647-2655.	0.9	5
146	Techno-economic assessment of titanium dioxide nanorod-based perovskite solar cells: From lab-scale to large-scale manufacturing. Applied Energy, 2021, 298, 117251.	10.1	5
147	The Effect of Molecular Structure and Environment on the Miscibility and Diffusivity in Polythiophene-Methanofullerene Bulk Heterojunctions: Theory and Modeling with the RISM Approach. Polymers, 2016, 8, 136.	4.5	4
148	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
149	Fabrication of Phase Change Microstring Resonators via Top Down Lithographic Techniques: Incorporation of VO2/TiO2 Into Conventional Processes. Journal of Microelectromechanical Systems, 2019, 28, 766-775.	2.5	4
150	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.	2.2	4
151	Effect of Anodization Bath Chemistry on Photochemical Water Splitting Using Titania Nanotubes. Materials Research Society Symposia Proceedings, 2004, 836, L1.9.1.	0.1	3
152	The Morphology of TiO2 Nanotube Arrays Grown from Atomically Peened and Non-Atomically Peened Ti Films. Journal of Nanoscience and Nanotechnology, 2017, 17, 4936-4945.	0.9	3
153	Photoelectrochemical Properties of Highly-ordered Titania Nanotube-arrays. Materials Research Society Symposia Proceedings, 2004, 837, 39.	0.1	2
154	Effect of the Nature of the Metal Co-Catalyst on CO2 Photoreduction Using Fast-Grown Periodically Modulated Titanium Dioxide Nanotube Arrays (PMTiNTs). Materials Research Society Symposia Proceedings, 2013, 1578, 1.	0.1	2
155	The Wetting Behavior of TiO2 Nanotube Arrays With Perfluorinated Surface Functionalization. , 2014, , .		2
156	Surface second harmonic generation spectra of titania coated Au NPs. Applied Surface Science, 2022, 581, 152381.	6.1	2
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