

Tom Mathews

List of Publications by Year in descending order

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47
papers

1,230
citations

394421

19
h-index

361022

35
g-index

49
all docs

49
docs citations

49
times ranked

1956
citing authors

#	ARTICLE	IF	CITATIONS
1	Band alignment and charge transfer pathway in three phase anatase-rutile-brookite TiO ₂ nanotubes: An efficient photocatalyst for water splitting. <i>Applied Catalysis B: Environmental</i> , 2017, 218, 9-19.	20.2	117
2	Efficient photocatalytic hydrogen generation by Pt modified TiO ₂ nanotubes fabricated by rapid breakdown anodization. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 8268-8276.	7.1	83
3	A Study on Doped Heterojunctions in TiO ₂ Nanotubes: An Efficient Photocatalyst for Solar Water Splitting. <i>Scientific Reports</i> , 2017, 7, 14314.	3.3	74
4	Nitrogen doped anatase-rutile heterostructured nanotubes for enhanced photocatalytic hydrogen production: Promising structure for sustainable fuel production. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 5865-5877.	7.1	71
5	Spray pyrolytic deposition of transparent aluminum oxide (Al ₂ O ₃) films. <i>Applied Surface Science</i> , 2011, 258, 1091-1096.	6.1	69
6	Influence of substrate on nucleation and growth of vertical graphene nanosheets. <i>Applied Surface Science</i> , 2015, 349, 576-581.	6.1	67
7	Supercapacitive vertical graphene nanosheets in aqueous electrolytes. <i>Nano Structures Nano Objects</i> , 2017, 10, 42-50.	3.5	67
8	X-ray photoelectron spectroscopic studies of anodically synthesized self aligned TiO ₂ nanotube arrays and the effect of electrochemical parameters on tube morphology. <i>Materials Chemistry and Physics</i> , 2012, 132, 957-966.	4.0	65
9	Rapid breakdown anodization technique for the synthesis of high aspect ratio and high surface area anatase TiO ₂ nanotube powders. <i>Journal of Solid State Chemistry</i> , 2011, 184, 624-632.	2.9	55
10	Efficient electrocatalytic performance of thermally exfoliated reduced graphene oxide-Pt hybrid. <i>Materials Research Bulletin</i> , 2015, 70, 60-67.	5.2	55
11	Enhanced Field Emission Properties of Electrochemically Synthesized Self-Aligned Nitrogen-Doped TiO ₂ Nanotube Array Thin Films. <i>Journal of Physical Chemistry C</i> , 2012, 116, 16740-16746.	3.1	48
12	Enhanced supercapacitance of activated vertical graphene nanosheets in hybrid electrolyte. <i>Journal of Applied Physics</i> , 2017, 122, .	2.5	42
13	Nitrogen Location and Ti-O Bond Distances in Pristine and N-Doped TiO ₂ Anatase Thin Films by X-ray Absorption Studies. <i>Journal of Physical Chemistry C</i> , 2015, 119, 17640-17647.	3.1	40
14	Scalable transfer of vertical graphene nanosheets for flexible supercapacitor applications. <i>Nanotechnology</i> , 2017, 28, 415702.	2.6	39
15	Kinetics and Physicochemical Process of Photoinduced Hydrophobic to Superhydrophilic Switching of Pristine and N-doped TiO ₂ Nanotube Arrays. <i>Journal of Physical Chemistry C</i> , 2013, 117, 6851-6860.	3.1	32
16	Electrochemically synthesized visible light absorbing vertically aligned N-doped TiO ₂ nanotube array films. <i>Materials Research Bulletin</i> , 2012, 47, 4491-4497.	5.2	30
17	Effect of Ni, Pd, and Pt Nanoparticle Dispersion on Thick Films of TiO ₂ Nanotubes for Hydrogen Sensing: TEM and XPS Studies. <i>ACS Omega</i> , 2020, 5, 11352-11360.	3.5	23
18	Enhancement of electron field emission properties of TiO ₂ nanoplatelets by N-doping. <i>RSC Advances</i> , 2012, 2, 812-815.	3.6	19

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19	Synergetic Effect of NiO _x Decoration and Oxygen Plasma Treatment on Electrochemical Capacitor Performance of Vertical Graphene Nanosheets. ACS Applied Energy Materials, 2021, 4, 791-800.	5.1	19
20	Combustion chemical vapour deposition of Al ₂ O ₃ films: Effect of temperature on structure, morphology and adhesion. Surface and Coatings Technology, 2010, 205, 1838-1842.	4.8	16
21	Sunlight active antibacterial nanostructured N-doped TiO ₂ thin films synthesized by an ultrasonic spray pyrolysis technique. RSC Advances, 2012, 2, 10639.	3.6	15
22	A critical review on the variations in anodization parameters toward microstructural formation of TiO ₂ nanotubes. Electrochemical Science Advances, 2022, 2, e202100083.	2.8	15
23	Synthesis of silicon nanowalls exhibiting excellent antireflectivity and near super-hydrophobicity. Nano Structures Nano Objects, 2020, 21, 100424.	3.5	14
24	Microstructural studies of bulk and thin film GDC. Ionics, 2008, 14, 165-171.	2.4	13
25	Synthesis, microstructure and visible luminescence properties of vertically aligned lightly doped porous silicon nanowalls. Microporous and Mesoporous Materials, 2019, 273, 99-106.	4.4	13
26	Electrochemical tuning of heterojunctions in TiO ₂ nanotubes for efficient solar water splitting. Catalysis Science and Technology, 2019, 9, 5425-5432.	4.1	13
27	Crystallization kinetics and role of stress in Al induced layer exchange crystallization process of amorphous SiGe thin film on glass. Journal of Applied Physics, 2019, 126, 125303.	2.5	12
28	In-situ formation of Ge-rich SiGe alloy by electron beam evaporation and the effect of post deposition annealing on the energy band gap. Materials Science in Semiconductor Processing, 2018, 80, 31-37.	4.0	11
29	Synthesis of Al ₂ O ₃ thin films using laser assisted spray pyrolysis (LASP). Applied Surface Science, 2013, 265, 257-263.	6.1	10
30	Marginally Hydrogenated Triphasic Titania Nanotubes for Effective Visible-Light Photocatalytic Hydrogen Generation. Energy Technology, 2018, 6, 280-288.	3.8	9
31	Synthesis of γ -Alumina Coating by Combustion Chemical Vapour Deposition (C-CVD). Journal of Nanoscience and Nanotechnology, 2009, 9, 5372-5375.	0.9	8
32	Resonance Raman spectroscopic study for radial vibrational modes in ultra-thin walled TiO ₂ nanotubes. Journal of Raman Spectroscopy, 2015, 46, 231-235.	2.5	8
33	Plasma sprayed alumina-yttria composite ceramic coating for electrical insulation applications. Surface and Coatings Technology, 2021, 405, 126566.	4.8	6
34	Thermal oxidation and nitridation of Si nanowalls prepared by metal assisted chemical etching. AIP Conference Proceedings, 2018, .	0.4	5
35	Modification of oxide film on Zircaloy-2 by magnesium ions in high temperature aqueous solution. Journal of Nuclear Materials, 2021, 553, 153043.	2.7	5
36	Hydrogen sensing behaviour of platinum and palladium functionalized silicon nanowalls. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	5

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37	Open atmosphere laser assisted spray pyrolysis technique for deposition of Al ₂ O ₃ and yttria stabilised zirconia nanostructured coatings. Surface Engineering, 2011, 27, 407-409.	2.2	4
38	Effect of nanowall bunching on surface reflectance and wetting behaviour of silicon nanowall architectures. Nano Structures Nano Objects, 2022, 29, 100833.	3.5	4
39	Tribological properties of nanostructured TiO ₂ coatings. Surface Engineering, 2012, 28, 182-186.	2.2	2
40	Emerging Vertical Nanostructures for High-Performance Supercapacitor Applications. Environmental Chemistry for A Sustainable World, 2019, , 163-187.	0.5	2
41	Electrochemical studies on wafer-scale synthesized silicon nanowalls for supercapacitor application. Bulletin of Materials Science, 2020, 43, 1.	1.7	2
42	Electrical transport and optical properties of Al doped polycrystalline SiGe alloy thin film. Materials Chemistry and Physics, 2021, 258, 123944.	4.0	1
43	Evidence of weak-antilocalization phenomenon in Al-induced crystallization grown polycrystalline-SiGe thin film. Materials Letters, 2021, 300, 130164.	2.6	1
44	Titania Nano-architectures for Energy. , 2015, , 129-165.		1
45	Photo-Assisted Antimicrobial Activity of Transition Metal Oxides. Environmental Chemistry for A Sustainable World, 2021, , 29-61.	0.5	0
46	Titania-Based Heterojunctions for Hydrogen Generation by Water Photolysis. Environmental Chemistry for A Sustainable World, 2020, , 57-86.	0.5	0
47	Approach towards qualification of TCP/IP network components of PFBR. Nuclear Engineering and Technology, 2022, , .	2.3	0