

# Sunil Kumar

## List of Publications by Year in descending order

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121  
papers

2,216  
citations

201385

27  
h-index

315357

38  
g-index

121  
all docs

121  
docs citations

121  
times ranked

2733  
citing authors

#	ARTICLE	IF	CITATIONS
1	Natural Sunlight Driven Oxidative Homocoupling of Amines by a Truxene-Based Conjugated Microporous Polymer. <i>ACS Catalysis</i> , 2018, 8, 6751-6759.	5.5	106
2	Study of nonlinear optical properties of organic dye by Z-scan technique using He-Ne laser. <i>Journal of Materials Science: Materials in Electronics</i> , 2014, 25, 1410-1415.	1.1	62
3	Heptazine based organic framework as a chemiresistive sensor for ammonia detection at room temperature. <i>Journal of Materials Chemistry A</i> , 2018, 6, 18389-18395.	5.2	61
4	Phyto-fabrication of silver nanoparticles by <i>Acacia nilotica</i> leaves: Investigating their antineoplastic, free radical scavenging potential and application in H <sub>2</sub> O <sub>2</sub> sensing. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019, 99, 239-249.	2.7	57
5	2-Aminopyridine derivative as fluorescence "On-Off" molecular switch for selective detection of Fe <sup>3+</sup> /Hg <sup>2+</sup> . <i>Tetrahedron Letters</i> , 2012, 53, 2302-2307.	0.7	56
6	Study of energy transfer from capping agents to intrinsic vacancies/defects in passivated ZnS nanoparticles. <i>Journal of Nanoparticle Research</i> , 2010, 12, 2655-2666.	0.8	54
7	Using chemical bath deposition to create nanosheet-like CuO electrodes for supercapacitor applications. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 181, 1004-1011.	2.5	54
8	A true oxygen-linked heptazine based polymer for efficient hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 313-319.	10.8	54
9	Supercapacitors based on Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene extracted from supernatant and current collectors passivated by CVD-graphene. <i>Scientific Reports</i> , 2021, 11, 649.	1.6	54
10	Engineering fused coumarin dyes: a molecular level understanding of aggregation quenching and tuning electroluminescence via alkyl chain substitution. <i>Journal of Materials Chemistry C</i> , 2014, 2, 6637.	2.7	53
11	Thickness-dependent efficiency of directly grown graphene based solar cells. <i>Carbon</i> , 2019, 148, 187-195.	5.4	49
12	Exploring an Emissive Charge Transfer Process in Zero-Twist Donor-Acceptor Molecular Design as a Dual-State Emitter. <i>Journal of Physical Chemistry C</i> , 2016, 120, 12723-12733.	1.5	46
13	Imine containing benzophenone scaffold as an efficient chemical device to detect selectively Al <sup>3+</sup> . <i>RSC Advances</i> , 2013, 3, 345-351.	1.7	43
14	Polymer-dispersed liquid-crystal-based switchable glazing fabricated via vacuum glass coupling. <i>RSC Advances</i> , 2020, 10, 32225-32231.	1.7	41
15	Application of Titanium-Carbide MXene-Based Transparent Conducting Electrodes in Flexible Smart Windows. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 40976-40985.	4.0	37
16	Magnetic and structural characterization of transition metal co-doped CdS nanoparticles. <i>Applied Nanoscience (Switzerland)</i> , 2012, 2, 127-131.	1.6	36
17	Acrylate-assisted fractal nanostructured polymer dispersed liquid crystal droplet based vibrant colored smart-windows. <i>RSC Advances</i> , 2019, 9, 12645-12655.	1.7	36
18	Shallow chemical bath deposition of ZnS buffer layer for environmentally benign solar cell devices. <i>Advances in Natural Sciences: Nanoscience and Nanotechnology</i> , 2014, 5, 025015.	0.7	35

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19	Role of deposition parameters on the properties of the fabricated heterojunction ZnS/p-Si Schottky diode. <i>Physica Scripta</i> , 2022, 97, 045819.	1.2	34
20	Trend breaking substitution pattern of phenothiazine with acceptors as a rational design platform for blue emitters. <i>Journal of Materials Chemistry C</i> , 2016, 4, 6769-6777.	2.7	33
21	Effect of Cu-doping on the photoluminescence and photoconductivity of template synthesized CdS nanowires. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 124, 1-6.	1.9	33
22	Solvothermally synthesized europium-doped CdS nanorods: applications as phosphors. <i>Journal of Nanoparticle Research</i> , 2011, 13, 5465-5471.	0.8	32
23	Compost Soil Microbial Fuel Cell to Generate Power using Urea as Fuel. <i>Scientific Reports</i> , 2020, 10, 4154.	1.6	32
24	Emergence of <i>s</i> -heptazines: from trichloro- <i>s</i> -heptazine building blocks to functional materials. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21719-21728.	5.2	30
25	Hydrogen-bond mediated columnar liquid crystalline assemblies of $C_{3v}$ -symmetric heptazine derivatives at ambient temperature. <i>Soft Matter</i> , 2018, 14, 6342-6352.	1.2	30
26	Effect of silica on the ZnS nanoparticles for stable and sustainable antibacterial application. <i>International Journal of Applied Ceramic Technology</i> , 2019, 16, 531-540.	1.1	30
27	Heptazine: an Electron-Deficient Fluorescent Core for Discotic Liquid Crystals. <i>Chemistry - A European Journal</i> , 2017, 23, 14718-14722.	1.7	29
28	A Comparative Investigation of Optical and Structural Properties of Cu-Doped CdO-Derived Nanostructures. <i>Journal of Superconductivity and Novel Magnetism</i> , 2017, 30, 1439-1446.	0.8	28
29	Effect of zinc oxide concentration in fluorescent ZnS:Mn/ZnO core-shell nanostructures. <i>Journal of Materials Science: Materials in Electronics</i> , 2014, 25, 1716-1723.	1.1	27
30	Structural, optical and magnetic investigations on Fe-doped ZnS nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 2754-2759.	1.1	27
31	Room Temperature Magnetism in Cobalt-Doped ZnS Nanoparticles. <i>Journal of Superconductivity and Novel Magnetism</i> , 2015, 28, 137-142.	0.8	27
32	Deep-Blue OLED Fabrication from Heptazine Columnar Liquid Crystal Based AlE-Active Sky-Blue Emitter. <i>ChemistrySelect</i> , 2018, 3, 7771-7777.	0.7	27
33	Effect of Ni-doping on optical and magnetic properties of solvothermally synthesized ZnS wurtzite nanorods. <i>Journal of Materials Science: Materials in Electronics</i> , 2014, 25, 785-790.	1.1	26
34	Effect of annealing treatment and deposition temperature on CdS thin films for CIGS solar cells applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 7890-7898.	1.1	26
35	Effect of $Ti_3C_2Tx$ MXenes etched at elevated temperatures using concentrated acid on binder-free supercapacitors. <i>RSC Advances</i> , 2020, 10, 41837-41845.	1.7	26
36	Orthogonal biofunctionalization of magnetic nanoparticles via "clickable" poly(ethylene glycol) silanes: a "universal ligand" strategy to design stealth and target-specific nanocarriers. <i>Journal of Materials Chemistry</i> , 2012, 22, 24652.	6.7	24

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37	Variation in chemical bath pH and the corresponding precursor concentration for optimizing the optical, structural and morphological properties of ZnO thin films. Journal of Materials Science: Materials in Electronics, 2019, 30, 17747-17758.	1.1	24
38	Structural and optical properties of silica capped ZnS:Mn quantum dots. Journal of Materials Science: Materials in Electronics, 2015, 26, 3939-3946.	1.1	23
39	Solar cell based on vertical graphene nano hills directly grown on silicon. Carbon, 2020, 164, 235-243.	5.4	23
40	Microemulsion-Mediated Synthesis and Characterization of $\text{YBO}_3$ : $\text{Ce}^{3+}$ Phosphors. Journal of the American Ceramic Society, 2012, 95, 1814-1817.	1.9	21
41	Preferential intermolecular interactions lead to chiral recognition: enantioselective gel formation and collapse. Chemical Communications, 2018, 54, 11407-11410.	2.2	21
42	Effect of the Photoinitiator Concentration on the Electro-optical Properties of Thiol-Acrylate-Based PDLC Smart Windows. ACS Applied Energy Materials, 2022, 5, 6986-6995.	2.5	21
43	Photoluminescence properties of $\text{Eu}^{3+}$ -doped $\text{Cd}_{1-x}\text{Zn}_x\text{S}$ quantum dots. Journal of Nanoparticle Research, 2009, 11, 1017-1021.	0.8	20
44	Effect of N-Substitution on the Electropolymerization of N-Substituted Pyrroles: Structure-Reactivity Relationship Studies. Journal of Physical Chemistry C, 2014, 118, 2570-2579.	1.5	20
45	Variation of dielectric strength of a insulation paper with thermal aging. NDT and E International, 2005, 38, 459-461.	1.7	19
46	Functionalization and characterization of ZnS quantum dots using biocompatible l-cysteine. Journal of Materials Science: Materials in Electronics, 2013, 24, 3875-3880.	1.1	19
47	Effect of biocompatible glutathione capping on core-shell ZnS quantum dots. Journal of Materials Science: Materials in Electronics, 2012, 23, 1387-1392.	1.1	17
48	Cysteamine-Based Cell-Permeable $\text{Zn}^{2+}$ -Specific Molecular Bioimaging Materials: From Animal to Plant Cells. ACS Applied Materials & Interfaces, 2013, 5, 11730-11740.	4.0	17
49	Structural and optical characterization of hydroxy-propyl methyl cellulose-capped ZnO nanorods. Journal of Materials Science, 2013, 48, 5536-5542.	1.7	17
50	CVD-graphene for low equivalent series resistance in rGO/CVD-graphene/Ni-based supercapacitors. Nanotechnology, 2018, 29, 195404.	1.3	17
51	Optical characterization of ZnO nanobelts. Journal of Materials Science: Materials in Electronics, 2006, 17, 281-285.	1.1	16
52	Synthesis and characterization of Ni-doped CdSe nanoparticles: magnetic studies in 300-1000 K temperature range. Applied Nanoscience (Switzerland), 2012, 2, 437-443.	1.6	16
53	Ferromagnetic and weak superparamagnetic like behavior of Ni-doped ZnS nanocrystals synthesized by reflux method. Journal of Materials Science: Materials in Electronics, 2014, 25, 1132-1137.	1.1	16
54	Microwave assisted synthesis of ZnO:Cu nano-phosphors and their photoluminescence behaviour. Journal of Materials Science: Materials in Electronics, 2010, 21, 765-771.	1.1	14

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55	Through Positional Isomerism: Impact of Molecular Composition on Enhanced Triplet Harvest for Solution-Processed OLED Efficiency Improvement. <i>ACS Applied Electronic Materials</i> , 2021, 3, 2317-2332.	2.0	14
56	Effect of thermal annealing on pore density, pore size and pore homogeneity of polycarbonate NTFs. <i>Radiation Measurements</i> , 2008, 43, 1357-1359.	0.7	13
57	Structurally tuned benzo[h]chromene derivative as Pb <sup>2+</sup> selective "turn-on" fluorescence sensor for living cell imaging. <i>Journal of Luminescence</i> , 2013, 143, 355-360.	1.5	13
58	Multifunctional ammonium fuel cell using compost as a novel electro-catalyst. <i>Journal of Power Sources</i> , 2018, 402, 221-228.	4.0	13
59	Effect of zinc oxide concentration on the core-shell ZnS/ZnO nanocomposites. <i>Journal of Materials Science: Materials in Electronics</i> , 2013, 24, 5147-5154.	1.1	12
60	Atomic force microscope manipulation of multiwalled and single walled carbon nanotubes with reflux and ultrasonic treatments. <i>Applied Nanoscience (Switzerland)</i> , 2014, 4, 19-26.	1.6	12
61	Investigation of the Magnetic and Optical Properties of Wurtzite Fe-Doped ZnS Nanorods. <i>Journal of Electronic Materials</i> , 2015, 44, 2829-2834.	1.0	12
62	Dendritic Polynitrato Energetic Motifs: Development and Exploration of Physicochemical Behavior through Theoretical and Experimental Approach. <i>ACS Omega</i> , 2017, 2, 8227-8233.	1.6	12
63	Correlation of antibacterial and time resolved photoluminescence studies using bio-reduced silver nanoparticles conjugated with fluorescent quantum dots as a biomarker. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 6977-6983.	1.1	12
64	Studies on directly grown few layer graphene processed using tape-peeling method. <i>Carbon</i> , 2020, 158, 749-755.	5.4	12
65	Room temperature magnetism in Ni-doped CdSe nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , 2011, 22, 901-904.	1.1	11
66	Femtosecond insights into direct electron injection in dye anchored ZnO QDs following charge transfer excitation. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 20672-20681.	1.3	11
67	Optical properties of Silica capped Mn doped ZnS quantum dots. <i>Physica Scripta</i> , 2021, 96, 065802.	1.2	11
68	Effect of glutathione capping on the antibacterial activity of tin doped ZnO nanoparticles. <i>Physica Scripta</i> , 2021, 96, 125807.	1.2	11
69	Morphology and time resolved photoluminescence of electrochemically synthesized zinc oxide nanowires. <i>Journal of Materials Science: Materials in Electronics</i> , 2010, 21, 1277-1280.	1.1	10
70	Room temperature ferromagnetic behavior of Eu doped Cd <sub>1-x</sub> Zn <sub>x</sub> S nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , 2011, 22, 523-526.	1.1	10
71	Room temperature ferromagnetism in solvothermally synthesized pure CdSe and CdSe:Ni nanorods. <i>Journal of Materials Science: Materials in Electronics</i> , 2011, 22, 1456-1459.	1.1	10
72	Carboxylated "locking unit" directed ratiometric probe design, synthesis and application in selective recognition of Fe <sup>3+</sup> /Cu <sup>2+</sup> . <i>RSC Advances</i> , 2013, 3, 6271.	1.7	10

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73	Mathematical models for the oxidative functionalization of multiwalled carbon nanotubes. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2013, 419, 156-165.	2.3	10
74	Synthesis and characterisation of functional manganese doped ZnS quantum dots for bio-imaging application. <i>Advances in Applied Ceramics</i> , 2019, 118, 321-328.	0.6	10
75	Quantum dot-sensitized O-linked heptazine polymer photocatalyst for the metal-free visible light hydrogen generation. <i>RSC Advances</i> , 2020, 10, 29633-29641.	1.7	10
76	Optimum design for the ballistic diode based on graphene field-effect transistors. <i>Npj 2D Materials and Applications</i> , 2021, 5, .	3.9	10
77	Effect of pyridine capping on morphological and optical properties of ZnS:Mn <sup>2+</sup> core-shell quantum dots. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 3003-3010.	1.1	9
78	Whey peptide-encapsulated silver nanoparticles as a colorimetric and spectrophotometric probe for palladium(II). <i>Mikrochimica Acta</i> , 2019, 186, 763.	2.5	9
79	Three-dimensional atomic force microscopy for ultra-high-aspect-ratio imaging. <i>Applied Surface Science</i> , 2019, 469, 582-592.	3.1	9
80	A Tailored Heptazine-Based Porous Polymeric Network as a Versatile Heterogeneous (Photo)catalyst. <i>Chemistry - A European Journal</i> , 2021, 27, 10649-10656.	1.7	9
81	Doping studies of Tb (terbium) and Cu (copper) on CdSe nanorods. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 389, 1-5.	2.3	8
82	Glutathione-assisted synthesis of star-shaped zinc oxide nanostructures and their photoluminescence behavior. <i>Journal of Luminescence</i> , 2014, 149, 112-117.	1.5	8
83	Solvothermal growth of ultrathin nonporous nickel oxide nanosheets for ethanol sensing. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 818-826.	1.1	8
84	Room temperature investigations on optical and magnetic studies of Co <sub>x</sub> Zn <sub>1-x</sub> S nanorods. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 374, 548-552.	1.0	7
85	Role of Voluminous Substituents in Controlling the Optical Properties of Disc/Planar-Like Small Organic Molecules: Toward Molecular Emission in Solid State. <i>ACS Omega</i> , 2017, 2, 5348-5356.	1.6	7
86	Understanding the role of soft linkers in designing heptazine-based polymeric frameworks as heterogeneous (photo)catalyst. <i>Journal of Colloid and Interface Science</i> , 2021, 588, 138-146.	5.0	7
87	Thermal analysis and tribo-performance evaluation of multilayered graphene and graphite based fly ash filled banana fiber reinforced brake friction composites. <i>Polymer Composites</i> , 2022, 43, 6943-6954.	2.3	7
88	Photoluminescence characteristics of synthesized copper doped Cd <sub>1-x</sub> Zn <sub>x</sub> S quantum dots. <i>Journal of Materials Science: Materials in Electronics</i> , 2009, 20, 1178-1181.	1.1	6
89	A hybrid impedance control scheme for underwater welding robots with a passive foundation in the controller domain. <i>Simulation</i> , 2017, 93, 619-630.	1.1	6
90	Study of dispersion, absorption and permittivity of an synthetic insulation paper with change in frequency and thermal aging. <i>NDT and E International</i> , 2006, 39, 19-21.	1.7	5

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91	Optical studies of electrochemically synthesized CdS nanowires. Journal of Materials Science: Materials in Electronics, 2011, 22, 335-338.	1.1	5
92	Study of electroless template synthesized ZnSe nanowires and its characterization. Journal of Materials Science: Materials in Electronics, 2014, 25, 957-961.	1.1	5
93	Annealing led conversion from polypyrrole to carbon nitride nanowires and the fabrication of highly efficient ammonia sensing device. Journal of Materials Science: Materials in Electronics, 2017, 28, 17791-17797.	1.1	5
94	Effect of Killer Impurities on Laser Excited Doped ZnS Phosphors. Journal of Optics (India), 2003, 32, 69-73.	0.8	4
95	Laser based optical sensor for vibration measurements. NDT and E International, 2006, 39, 106-108.	1.7	4
96	Studies of hydro-mellose (HPMC) functionalized ZnS:Mn fluorescent quantum dots. Journal of Materials Science: Materials in Electronics, 2017, 28, 1931-1937.	1.1	4
97	Cyclic codes with generalized cyclotomic cubic classes. Journal of Discrete Mathematical Sciences and Cryptography, 2019, 22, 923-933.	0.5	4
98	Effect of temperature on excited state life-times of rare earth doped zinc oxide phosphors. Journal of Physics and Chemistry of Solids, 2006, 67, 868-870.	1.9	3
99	Packing directed beneficial role of 3-D rigid alicyclic arms on the templated molecular aggregation problem. RSC Advances, 2015, 5, 61249-61257.	1.7	3
100	Photoluminescent properties of SPAN-80 coated intrinsic and extrinsic ZnO nanostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 79, 188-197.	1.3	3
101	Effect of frequency and thermal aging on various parameters of a dielectric. NDT and E International, 2005, 38, 573-574.	1.7	2
102	Photoluminescence study of template-synthesized silver microstructures. Journal of Materials Science, 2005, 40, 3833-3835.	1.7	2
103	Effects of La <sup>3+</sup> doping on the optical characteristics and color tunability of (Mg, Mn)(Y, Ce, La) <sub>4</sub> Si <sub>3</sub> O <sub>13</sub> phosphors. Journal of Luminescence, 2012, 132, 185-190.	1.5	2
104	Photo-physical studies of pyridine capped ZnO nanostructures. Russian Journal of Physical Chemistry A, 2014, 88, 1166-1171.	0.1	2
105	Structural and optical behavior of hexa-propyl methyl cellulose (HPMC) capped ZnS core-shell quantum dots. Journal of Materials Science: Materials in Electronics, 2015, 26, 5980-5986.	1.1	2
106	pH dependent studies of chemical bath deposition grown ZnO-SiO <sub>2</sub> core-shell thin films. Journal of the Korean Physical Society, 2017, 70, 98-103.	0.3	2
107	Modified Atomic Orbital Overlap: Molecular Level Proof of the Nucleophilic Cleavage Propensity of Dinitrophenol-Based Probes. Journal of Organic Chemistry, 2017, 82, 4713-4720.	1.7	2
108	Study of Size Dependent Photo-Induced Exciton Life-Time and Photocatalytic Activity of Nanocrystalline CdZnS. Advanced Science Letters, 2012, 16, 237-243.	0.2	2

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109	Through Structural Isomerism: Positional Effect of Alkyne Functionality on Molecular Optical Properties. <i>Physical Chemistry Chemical Physics</i> , 2022, , .	1.3	2
110	Rectifying Effect in a High-Performance Ballistic Diode Bridge Based on Encapsulated Graphene with a Unique Design. <i>ACS Applied Electronic Materials</i> , 2022, 4, 1518-1524.	2.0	2
111	Optical Properties of ZnO Phosphors Activated with Mn and Se Impurity. <i>Journal of Optics (India)</i> , 2006, 35, 45-50.	0.8	1
112	LASER-INDUCED PHOTOLUMINESCENT STUDIES OF Al-DOPED ZINC OXIDE NANOPARTICLES. <i>International Journal of Nanoscience</i> , 2010, 09, 439-445.	0.4	1
113	An efficient novel low voltage field electron emitter with cathode consisting of template synthesized copper microarrays. <i>Journal of Materials Science: Materials in Electronics</i> , 2011, 22, 1725-1729.	1.1	1
114	Effects of AlN buffer layers on the structural and the optical properties of GaN epilayers grown on Al <sub>2</sub> O <sub>3</sub> substrates by using plasma-assisted molecular beam epitaxy. <i>Journal of the Korean Physical Society</i> , 2014, 64, 1128-1131.	0.3	1
115	Effect of ferromagnetic dopants on laser induced optical parameters of bismuth doped CaS phosphors. <i>Russian Journal of Physical Chemistry A</i> , 2015, 89, 2482-2486.	0.1	1
116	Electronic and optical properties of ZnOS/ZnO quantum-well structures with polarization effects. <i>Journal of the Korean Physical Society</i> , 2016, 69, 370-372.	0.3	1
117	Effect of killer impurities on laser-excited barium-doped ZnS phosphors at liquid nitrogen temperature. <i>Radiation Effects and Defects in Solids</i> , 2008, 163, 805-811.	0.4	0
118	Effect of Visible Spectrum on the Optical Parameters of ZnSe Nanoparticles. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	0
119	Phototoxicity free quantum dot-based niosome formulation for controlled drug release and its monitoring. <i>Applied Nanoscience (Switzerland)</i> , 2018, 8, 617-625.	1.6	0
120	Controlling the physical parameters of crystalline CIGS nanowires for use in superstrate configuration using vapor phase epitaxy. <i>Applied Nanoscience (Switzerland)</i> , 2018, 8, 1043-1051.	1.6	0
121	Influence of Synthesis-Dependent Structural Morphology on Performance of Natural Dye-Sensitized ZnO Solar Cells. <i>Jom</i> , 2019, 71, 1477-1484.	0.9	0