

# Sunil Kumar

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2121532/publications.pdf>

Version: 2024-02-01

121  
papers

2,216  
citations

201674

27  
h-index

315739

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.	11.2	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.	2.2	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.	10.3	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.	5.3	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.	1.4	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.	1.9	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.	5.0	54
8	A true oxygen-linked heptazine based polymer for efficient hydrogen evolution. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 313-319.	20.2	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.	3.3	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.	5.5	53
11	Thickness-dependent efficiency of directly grown graphene based solar cells. <i>Carbon</i> , 2019, 148, 187-195.	10.3	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.	3.1	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.	3.6	43
14	Polymer-dispersed liquid-crystal-based switchable glazing fabricated via vacuum glass coupling. <i>RSC Advances</i> , 2020, 10, 32225-32231.	3.6	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.	8.0	37
16	Magnetic and structural characterization of transition metal co-doped CdS nanoparticles. <i>Applied Nanoscience (Switzerland)</i> , 2012, 2, 127-131.	3.1	36
17	Acrylate-assisted fractal nanostructured polymer dispersed liquid crystal droplet based vibrant colored smart-windows. <i>RSC Advances</i> , 2019, 9, 12645-12655.	3.6	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.	1.5	35

#	ARTICLE	IF	CITATIONS
19	Role of deposition parameters on the properties of the fabricated heterojunction ZnS/p-Si Schottky diode. <i>Physica Scripta</i> , 2022, 97, 045819.	2.5	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.	5.5	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.	4.0	33
22	Solvothermally synthesized europium-doped CdS nanorods: applications as phosphors. <i>Journal of Nanoparticle Research</i> , 2011, 13, 5465-5471.	1.9	32
23	Compost Soil Microbial Fuel Cell to Generate Power using Urea as Fuel. <i>Scientific Reports</i> , 2020, 10, 4154.	3.3	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.	10.3	30
25	Hydrogen-bond mediated columnar liquid crystalline assemblies of $C_3$ -symmetric heptazine derivatives at ambient temperature. <i>Soft Matter</i> , 2018, 14, 6342-6352.	2.7	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.	2.1	30
27	Heptazine: an Electron-Deficient Fluorescent Core for Discotic Liquid Crystals. <i>Chemistry - A European Journal</i> , 2017, 23, 14718-14722.	3.3	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.	1.8	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.	2.2	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.	2.2	27
31	Room Temperature Magnetism in Cobalt-Doped ZnS Nanoparticles. <i>Journal of Superconductivity and Novel Magnetism</i> , 2015, 28, 137-142.	1.8	27
32	Deep-Blue OLED Fabrication from Heptazine Columnar Liquid Crystal Based AlE-Active Sky-Blue Emitter. <i>ChemistrySelect</i> , 2018, 3, 7771-7777.	1.5	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.	2.2	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.	2.2	26
35	Effect of $Ti_3C_2$ MXenes etched at elevated temperatures using concentrated acid on binder-free supercapacitors. <i>RSC Advances</i> , 2020, 10, 41837-41845.	3.6	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

#	ARTICLE	IF	CITATIONS
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.	2.2	24
38	Structural and optical properties of silica capped ZnS:Mn quantum dots. Journal of Materials Science: Materials in Electronics, 2015, 26, 3939-3946.	2.2	23
39	Solar cell based on vertical graphene nano hills directly grown on silicon. Carbon, 2020, 164, 235-243.	10.3	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.	3.8	21
41	Preferential intermolecular interactions lead to chiral recognition: enantioselective gel formation and collapse. Chemical Communications, 2018, 54, 11407-11410.	4.1	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.	5.1	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.	1.9	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.	3.1	20
45	Variation of dielectric strength of a insulation paper with thermal aging. NDT and E International, 2005, 38, 459-461.	3.7	19
46	Functionalization and characterization of ZnS quantum dots using biocompatible l-cysteine. Journal of Materials Science: Materials in Electronics, 2013, 24, 3875-3880.	2.2	19
47	Effect of biocompatible glutathione capping on core-shell ZnS quantum dots. Journal of Materials Science: Materials in Electronics, 2012, 23, 1387-1392.	2.2	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.	8.0	17
49	Structural and optical characterization of hydroxy-propyl methyl cellulose-capped ZnO nanorods. Journal of Materials Science, 2013, 48, 5536-5542.	3.7	17
50	CVD-graphene for low equivalent series resistance in rGO/CVD-graphene/Ni-based supercapacitors. Nanotechnology, 2018, 29, 195404.	2.6	17
51	Optical characterization of ZnO nanobelts. Journal of Materials Science: Materials in Electronics, 2006, 17, 281-285.	2.2	16
52	Synthesis and characterization of Ni-doped CdSe nanoparticles: magnetic studies in 300-100 K temperature range. Applied Nanoscience (Switzerland), 2012, 2, 437-443.	3.1	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.	2.2	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.	2.2	14

#	ARTICLE	IF	CITATIONS
55	Through Positional Isomerism: Impact of Molecular Composition on Enhanced Triplet Harvest for Solution-Processed OLED Efficiency Improvement. ACS Applied Electronic Materials, 2021, 3, 2317-2332.	4.3	14
56	Effect of thermal annealing on pore density, pore size and pore homogeneity of polycarbonate NTFs. Radiation Measurements, 2008, 43, 1357-1359.	1.4	13
57	Structurally tuned benzo[h]chromene derivative as Pb <sup>2+</sup> selective "turn-on" fluorescence sensor for living cell imaging. Journal of Luminescence, 2013, 143, 355-360.	3.1	13
58	Multifunctional ammonium fuel cell using compost as a novel electro-catalyst. Journal of Power Sources, 2018, 402, 221-228.	7.8	13
59	Effect of zinc oxide concentration on the core-shell ZnS/ZnO nanocomposites. Journal of Materials Science: Materials in Electronics, 2013, 24, 5147-5154.	2.2	12
60	Atomic force microscope manipulation of multiwalled and single walled carbon nanotubes with reflux and ultrasonic treatments. Applied Nanoscience (Switzerland), 2014, 4, 19-26.	3.1	12
61	Investigation of the Magnetic and Optical Properties of Wurtzite Fe-Doped ZnS Nanorods. Journal of Electronic Materials, 2015, 44, 2829-2834.	2.2	12
62	Dendritic Polynitrato Energetic Motifs: Development and Exploration of Physicochemical Behavior through Theoretical and Experimental Approach. ACS Omega, 2017, 2, 8227-8233.	3.5	12
63	Correlation of antibacterial and time resolved photoluminescence studies using bio-reduced silver nanoparticles conjugated with fluorescent quantum dots as a biomarker. Journal of Materials Science: Materials in Electronics, 2019, 30, 6977-6983.	2.2	12
64	Studies on directly grown few layer graphene processed using tape-peeling method. Carbon, 2020, 158, 749-755.	10.3	12
65	Room temperature magnetism in Ni-doped CdSe nanoparticles. Journal of Materials Science: Materials in Electronics, 2011, 22, 901-904.	2.2	11
66	Femtosecond insights into direct electron injection in dye anchored ZnO QDs following charge transfer excitation. Physical Chemistry Chemical Physics, 2016, 18, 20672-20681.	2.8	11
67	Optical properties of Silica capped Mn doped ZnS quantum dots. Physica Scripta, 2021, 96, 065802.	2.5	11
68	Effect of glutathione capping on the antibacterial activity of tin doped ZnO nanoparticles. Physica Scripta, 2021, 96, 125807.	2.5	11
69	Morphology and time resolved photoluminescence of electrochemically synthesized zinc oxide nanowires. Journal of Materials Science: Materials in Electronics, 2010, 21, 1277-1280.	2.2	10
70	Room temperature ferromagnetic behavior of Eu doped Cd <sub>1-x</sub> Zn <sub>x</sub> S nanoparticles. Journal of Materials Science: Materials in Electronics, 2011, 22, 523-526.	2.2	10
71	Room temperature ferromagnetism in solvothermally synthesized pure CdSe and CdSe:Ni nanorods. Journal of Materials Science: Materials in Electronics, 2011, 22, 1456-1459.	2.2	10
72	Carboxylated "locking unit" directed ratiometric probe design, synthesis and application in selective recognition of Fe <sup>3+</sup> /Cu <sup>2+</sup> . RSC Advances, 2013, 3, 6271.	3.6	10

#	ARTICLE	IF	CITATIONS
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.	4.7	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.	1.1	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.	3.6	10
76	Optimum design for the ballistic diode based on graphene field-effect transistors. <i>Npj 2D Materials and Applications</i> , 2021, 5, .	7.9	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.	2.2	9
78	Whey peptide-encapsulated silver nanoparticles as a colorimetric and spectrophotometric probe for palladium(II). <i>Mikrochimica Acta</i> , 2019, 186, 763.	5.0	9
79	Three-dimensional atomic force microscopy for ultra-high-aspect-ratio imaging. <i>Applied Surface Science</i> , 2019, 469, 582-592.	6.1	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.	3.3	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.	4.7	8
82	Glutathione-assisted synthesis of star-shaped zinc oxide nanostructures and their photoluminescence behavior. <i>Journal of Luminescence</i> , 2014, 149, 112-117.	3.1	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.	2.2	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.	2.3	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.	3.5	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.	9.4	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.	4.6	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.	2.2	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.	1.8	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.	3.7	5

#	ARTICLE	IF	CITATIONS
91	Optical studies of electrochemically synthesized CdS nanowires. Journal of Materials Science: Materials in Electronics, 2011, 22, 335-338.	2.2	5
92	Study of electroless template synthesized ZnSe nanowires and its characterization. Journal of Materials Science: Materials in Electronics, 2014, 25, 957-961.	2.2	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.	2.2	5
94	Effect of Killer Impurities on Laser Excited Doped ZnS Phosphors. Journal of Optics (India), 2003, 32, 69-73.	1.7	4
95	Laser based optical sensor for vibration measurements. NDT and E International, 2006, 39, 106-108.	3.7	4
96	Studies of hypro-mellose (HPMC) functionalized ZnS:Mn fluorescent quantum dots. Journal of Materials Science: Materials in Electronics, 2017, 28, 1931-1937.	2.2	4
97	Cyclic codes with generalized cyclotomic cubic classes. Journal of Discrete Mathematical Sciences and Cryptography, 2019, 22, 923-933.	0.8	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.	4.0	3
99	Packing directed beneficial role of 3-D rigid alicyclic arms on the templated molecular aggregation problem. RSC Advances, 2015, 5, 61249-61257.	3.6	3
100	Photoluminescent properties of SPAN-80 coated intrinsic and extrinsic ZnO nanostructures. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 79, 188-197.	2.7	3
101	Effect of frequency and thermal aging on various parameters of a dielectric. NDT and E International, 2005, 38, 573-574.	3.7	2
102	Photoluminescence study of template-synthesized silver microstructures. Journal of Materials Science, 2005, 40, 3833-3835.	3.7	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.	3.1	2
104	Photo-physical studies of pyridine capped ZnO nanostructures. Russian Journal of Physical Chemistry A, 2014, 88, 1166-1171.	0.6	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.	2.2	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.	0.7	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.	3.2	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



#	ARTICLE	IF	CITATIONS
109	Through Structural Isomerism: Positional Effect of Alkyne Functionality on Molecular Optical Properties. <i>Physical Chemistry Chemical Physics</i> , 2022, , .	2.8	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.	4.3	2
111	Optical Properties of ZnO Phosphors Activated with Mn and Se Impurity. <i>Journal of Optics (India)</i> , 2006, 35, 45-50.	1.7	1
112	LASER-INDUCED PHOTOLUMINESCENT STUDIES OF Al-DOPED ZINC OXIDE NANOPARTICLES. <i>International Journal of Nanoscience</i> , 2010, 09, 439-445.	0.7	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.	2.2	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.	0.7	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.	0.6	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.	0.7	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.	1.2	0
118	Effect of Visible Spectrum on the Optical Parameters of ZnSe Nanoparticles. <i>AIP Conference Proceedings</i> , 2011, , .	0.4	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.	3.1	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.	3.1	0
121	Influence of Synthesis-Dependent Structural Morphology on Performance of Natural Dye-Sensitized ZnO Solar Cells. <i>Jom</i> , 2019, 71, 1477-1484.	1.9	0