

Mohan Singh Mehata

List of Publications by Year in descending order

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78
papers

2,407
citations

257101

24
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223531

46
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82
docs citations

82
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2539
citing authors

#	ARTICLE	IF	CITATIONS
1	Medicinal Plant Leaf Extract and Pure Flavonoid Mediated Green Synthesis of Silver Nanoparticles and their Enhanced Antibacterial Property. <i>Scientific Reports</i> , 2017, 7, 15867.	1.6	497
2	Controllable synthesis of silver nanoparticles using Neem leaves and their antimicrobial activity. <i>Journal of Radiation Research and Applied Sciences</i> , 2016, 9, 109-115.	0.7	311
3	Fluorescence Studies of Salicylic Acid Doped Poly(vinyl alcohol) Film as a Water/Humidity Sensor. <i>Journal of Physical Chemistry A</i> , 2004, 108, 2346-2352.	1.1	97
4	Wavefunction Engineering of Type-I/Type-II Excitons of CdSe/CdS Core-Shell Quantum Dots. <i>Scientific Reports</i> , 2019, 9, 2.	1.6	89
5	Excited-State Proton Transfer via Hydrogen-Bonded Acetic Acid (AcOH) Wire for 6-Hydroxyquinoline. <i>Journal of Physical Chemistry A</i> , 2011, 115, 19-24.	1.1	68
6	Green route synthesis of silver nanoparticles using plants/ginger extracts with enhanced surface plasmon resonance and degradation of textile dye. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021, 273, 115418.	1.7	64
7	Rapid sensing of lead metal ions in an aqueous medium by MoS ₂ quantum dots fluorescence turn-off. <i>Materials Research Bulletin</i> , 2020, 131, 110978.	2.7	58
8	Phase-dependent optical and photocatalytic performance of synthesized titanium dioxide (TiO ₂) nanoparticles. <i>Optik</i> , 2019, 193, 163011.	1.4	54
9	Fluorescence quenching of 6-methoxyquinoline: an indicator for sensing chloride ion in aqueous media. <i>Journal of Luminescence</i> , 2002, 99, 47-52.	1.5	50
10	Investigation of biocompatible and protein sensitive highly luminescent quantum dots/nanocrystals of CdSe, CdSe/ZnS and CdSe/CdS. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2017, 179, 201-210.	2.0	47
11	Green synthesis of silver nanoparticles using <i>Kalanchoe pinnata</i> leaves (life plant) and their antibacterial and photocatalytic activities. <i>Chemical Physics Letters</i> , 2021, 778, 138760.	1.2	46
12	TDDFT study of the polarity controlled ion-pair separation in an excited-state proton transfer reaction. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 128, 280-284.	2.0	43
13	Excited-state intermolecular proton transfer reaction of 6-hydroxyquinoline in protic polar medium. <i>Chemical Physics Letters</i> , 2002, 359, 314-320.	1.2	41
14	Synthesis and optical properties of core-multi-shell CdSe/CdS/ZnS quantum dots: Surface modifications. <i>Optical Materials</i> , 2017, 64, 250-256.	1.7	38
15	Enhancement of Charge Transfer and Quenching of Photoluminescence of Capped CdS Quantum Dots. <i>Scientific Reports</i> , 2015, 5, 12056.	1.6	37
16	Enhanced photoinduced catalytic activity of transition metal ions incorporated TiO ₂ nanoparticles for degradation of organic dye: Absorption and photoluminescence spectroscopy. <i>Optical Materials</i> , 2020, 109, 110309.	1.7	37
17	External Electric Field Effects on Optical Property and Excitation Dynamics of Capped CdS Quantum Dots Embedded in a Polymer Film. <i>Journal of Physical Chemistry C</i> , 2010, 114, 15594-15601.	1.5	34
18	Synthesis of photoactivated highly fluorescent Mn ²⁺ -doped ZnSe quantum dots as effective lead sensor in drinking water. <i>Materials Research Bulletin</i> , 2021, 134, 111121.	2.7	34

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19	Colloidal MoS ₂ quantum dots based optical sensor for detection of 2,4,6-TNP explosive in an aqueous medium. <i>Optical Materials</i> , 2020, 100, 109646.	1.7	32
20	Studies on the adsorption of peptides of glycine/alanine on montmorillonite clay with or without co-ordinated divalent cations. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2003, 212, 43-50.	2.3	31
21	Spin mixed charge transfer states of iridium complex Ir(ppy) ₃ : transient absorption and time-resolved photoluminescence. <i>RSC Advances</i> , 2015, 5, 34094-34099.	1.7	30
22	Luminescence properties and exciton dynamics of core-shell multi-shell semiconductor quantum dots leading to QLEDs. <i>Dalton Transactions</i> , 2019, 48, 7619-7631.	1.6	30
23	Controlled synthesis and optical properties of tunable CdSe quantum dots and effect of pH. <i>AIP Advances</i> , 2015, 5, .	0.6	29
24	Rapid optical sensor for recognition of explosive 2,4,6-TNP traces in water through fluorescent ZnSe quantum dots. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 260, 119937.	2.0	25
25	Photoinduced excited state proton rearrangement of 6-hydroxyquinoline along a hydrogen-bonded acetic acid wire. <i>Chemical Physics Letters</i> , 2007, 436, 357-361.	1.2	24
26	Proton Translocation and Electronic Relaxation along a Hydrogen-Bonded Molecular Wire in a 6-Hydroxyquinoline/Acetic Acid Complex. <i>Journal of Physical Chemistry B</i> , 2008, 112, 8383-8386.	1.2	24
27	Electric Field Effects on Photoluminescence of Polyfluorene Thin Films: Dependence on Excitation Wavelength, Field Strength, and Temperature. <i>Journal of Physical Chemistry C</i> , 2009, 113, 11907-11915.	1.5	24
28	Sunlight-driven MoS ₂ nanosheets mediated degradation of dye (crystal violet) for wastewater treatment. <i>Journal of Molecular Structure</i> , 2022, 1249, 131651.	1.8	23
29	Electroabsorption Spectroscopy of 6-Hydroxyquinoline Doped in Polymer Films: Stark Shifts and Orientational Effects. <i>Journal of Physical Chemistry A</i> , 2006, 110, 10985-10991.	1.1	22
30	Surface plasmon resonance allied applications of silver nanoflowers synthesized from <i>Breynia vitis-idaea</i> leaf extract. <i>Dalton Transactions</i> , 2022, 51, 2726-2736.	1.6	21
31	Edge excitation red shift and charge transfer study of 6-methoxyquinoline in polymer matrices. <i>Journal of Luminescence</i> , 2001, 93, 275-280.	1.5	19
32	Steady state and time-resolved spectroscopic studies of 7-hydroxyquinoline in various polymeric matrices. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2002, 58, 1589-1598.	2.0	19
33	Efficient fluorescence quenching of 5-aminoquinoline: Silver ion recognition study. <i>Journal of Luminescence</i> , 2019, 205, 475-481.	1.5	18
34	Flavones Fluorescence-Based Dual Response Chemosensor for Metal Ions in Aqueous Media and Fluorescence Recovery. <i>Journal of Fluorescence</i> , 2020, 30, 759-772.	1.3	18
35	Structural, Electronic and NLO Properties of 6-aminoquinoline: A DFT/TD-DFT Study. <i>Journal of Fluorescence</i> , 2021, 31, 1719-1729.	1.3	18
36	Synthesis of fluorescent graphene quantum dots from graphene oxide and their application in fabrication of QDs@AgNPs nanohybrids and sensing of H ₂ O ₂ . <i>Ceramics International</i> , 2021, 47, 19063-19072.	2.3	17

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37	Exploration of grown cobalt-doped zinc oxide nanoparticles and photodegradation of industrial dye. <i>Materials Research Bulletin</i> , 2022, 150, 111795.	2.7	17
38	Complexation of 6-hydroxyquinoline with trimethylamine in polar and non-polar solvents. <i>Chemical Physics Letters</i> , 2002, 366, 628-635.	1.2	16
39	An efficient excited-state proton transfer fluorescence quenching based probe (7-hydroxyquinoline) for sensing trivalent cations in aqueous environment. <i>Journal of Molecular Liquids</i> , 2021, 326, 115379.	2.3	16
40	Investigation of charge-separation/change in dipole moment of 7-azaindole: Quantitative measurement using solvatochromic shifts and computational approaches. <i>Journal of Molecular Liquids</i> , 2017, 231, 39-44.	2.3	15
41	Electric-Field-Induced Enhancement/Quenching of Photoluminescence of π -Conjugated Polymer S3-PPV: Excitation Energy Dependence. <i>Journal of Physical Chemistry B</i> , 2010, 114, 6258-6265.	1.2	14
42	Modulation of Fluorescence properties of 5-Aminoquinoline by Ag ⁺ in aqueous media via charge transfer. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 396, 112549.	2.0	14
43	Fluorescence characteristics of protonated form of 6-hydroxyquinoline in Nafion [®] film. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2003, 59, 559-567.	2.0	13
44	A 2 B corroles: Fluorescence signaling systems for sensing fluoride ions. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018, 202, 207-213.	2.0	13
45	Heat-initiated prebiotic formation of peptides from glycine/aspartic acid and glycine/valine in aqueous environment and clay suspension. <i>International Journal of Astrobiology</i> , 2009, 8, 107-115.	0.9	11
46	Stark shifts and exciton dissociation in CdSe nanoparticle grafted conjugated polymer. <i>Applied Physics Letters</i> , 2012, 100, 151908.	1.5	11
47	Experimental and theoretical study of hydroxyquinolines: hydroxyl group position dependent dipole moment and charge-separation in the photoexcited state leading to fluorescence. <i>Methods and Applications in Fluorescence</i> , 2016, 4, 045004.	1.1	11
48	Tunable single and double emission semiconductor nanocrystal quantum dots: a multianalyte sensor. <i>Methods and Applications in Fluorescence</i> , 2018, 6, 035006.	1.1	11
49	Temperature-dependent photoluminescence and decay times of different phases of grown TiO ₂ nanoparticles: Carrier dynamics and trap states. <i>Ceramics International</i> , 2021, 47, 32534-32544.	2.3	11
50	Investigation of grown ZnS film on HgCdTe substrate for passivation of infrared photodetector. <i>Thin Solid Films</i> , 2021, 731, 138751.	0.8	11
51	Solvatochromism and estimation of ground and excited state dipole moments of 6-aminoquinoline. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022, 267, 120498.	2.0	11
52	A parallel investigation of un-doped and manganese ion-doped zinc selenide quantum dots at cryogenic temperature and application as an optical temperature sensor. <i>Materials Chemistry and Physics</i> , 2022, 276, 125349.	2.0	11
53	Electric-field-induced changes in fluorescence decay and spectrum of tris(8-hydroxyquinoline)aluminum in a polymer film. <i>Chemical Physics Letters</i> , 2008, 457, 62-65.	1.2	10
54	Electroabsorption and Electrophotoluminescence of Poly(2,3-diphenyl-5-hexyl-p-phenylene vinylene). <i>Journal of Physical Chemistry C</i> , 2012, 116, 14789-14795.	1.5	10

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55	Synthesis, characterization and fluorescence turn-on behavior of new porphyrin analogue: meta-benzoporphodimethenes. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2016, 169, 58-65.	2.0	10
56	Steady state and time-resolved fluorescence study of 7,8-benzoquinoline: Reinvestigation of excited state protonation. <i>Journal of Molecular Structure</i> , 2019, 1180, 855-860.	1.8	10
57	Experimental and theoretical interpretations of spectral behavior of 6-methoxyflavone. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2021, 404, 112945.	2.0	9
58	Electric field effects on state energy and molecular orientation of 2-hydroxyquinoline in solid polymer films. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2009, 204, 39-45.	2.0	8
59	Surface Interaction of L-alanine on Hematite: An Astrobiological Implication. <i>Origins of Life and Evolution of Biospheres</i> , 2013, 43, 331-339.	0.8	8
60	Photo- and field-induced charge-separation and phosphorescence quenching in organometallic complex Ir(ppy) ₃ . <i>Applied Physics Letters</i> , 2011, 98, .	1.5	7
61	meta-Benzoporphodimethenes: New Cell Imaging Porphyrin Analogue Molecules. <i>ChemistrySelect</i> , 2016, 1, 3502-3509.	0.7	6
62	Spectral and time-resolved properties of photoinduced hydroxyquinolines doped thin polymer films. <i>Optical Materials</i> , 2018, 75, 751-756.	1.7	6
63	Catalytic activity of silver nanoparticles synthesized using <i>Crinum asiaticum</i> (Sudarshan) leaf extract. <i>Materials Today: Proceedings</i> , 2022, 56, 3714-3720.	0.9	6
64	Thermally grown indium (In) thin-film for creating ohmic contact and In-bumps for HgCdTe-based IR detectors. <i>Applied Surface Science</i> , 2022, 596, 153501.	3.1	6
65	Temperature-Dependent Electric Field-Induced Optical Transitions of 2D Molybdenum Disulfide (MoS ₂) Thin Films: Temperature-Dependent Electroabsorption and Absorption. <i>Journal of Physical Chemistry C</i> , 0, .	1.5	5
66	Affinity of Smectite and Divalent Metal Ions (Mg ²⁺ , Ca ²⁺ , Cu ²⁺) with L-leucine: An Experimental and Theoretical Approach Relevant to Astrobiology. <i>Origins of Life and Evolution of Biospheres</i> , 2015, 45, 411-426.	0.8	4
67	Bright red emission from doubly doped YAG:Pr/Sm nanophosphor and color modulation. <i>Optical Materials</i> , 2020, 107, 110106.	1.7	4
68	Reinvestigation of the photophysics of 3-aminobenzoic acid in neat and mixed binary solvents. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 247, 119100.	2.0	4
69	Spectroscopic Studies of 8-Hydroxyquinoline (8-HQ) Doped in Polymeric Matrices. <i>Journal of Optics (India)</i> , 2002, 31, 1-7.	0.8	3
70	Revisiting the photochemistry 2,5-dihydroxy benzoic acid (gentisic acid): Solvent and pH effect. <i>Journal of Physical Organic Chemistry</i> , 2021, 34, e4168.	0.9	3
71	Photoluminescence turn-off based dual analytes (Hg ²⁺ and Pb ²⁺) sensor in aqueous medium using 3-mercaptoproionic acid protected Mn ²⁺ doped ZnSe quantum dots. <i>Chemical Physics Letters</i> , 2022, 787, 139270.	1.2	2
72	Reinvestigation on Photoluminescence of 7-Hydroxyflavone in aqueous medium: Proficient fluorescence enhancement. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2022, , 114014.	2.0	2

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73	Synthesis and characterization of thermally-evaporated CdS thin-films. <i>Materials Today: Proceedings</i> , 2022, 67, 643-647.	0.9	2
74	Probing Charge-Transfer and Short-Lived Triplet States of a Biosensitive Molecule, 2,6-ANS: Transient Absorption and Time-Resolved Spectroscopy. <i>ACS Omega</i> , 2017, 2, 6782-6785.	1.6	1
75	Facile Synthesis of Semiconducting Ultrathin Layer of Molybdenum Disulfide. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 614-622.	0.9	1
76	Green Synthesis of Silver Nanoparticles Using <i>Abutilon theophrasti</i> Leaves and their Photocatalytic Activity for Water Treatment. <i>Springer Proceedings in Physics</i> , 2022, , 63-73.	0.1	1
77	Effect of halide ions on the fluorescence properties of 3-aminquinoline in aqueous medium. <i>Luminescence</i> , 2023, 38, 1192-1198.	1.5	1
78	Interaction between Picric Acid and 5-aminoquinoline: A Theoretical Study. , 2021, 8, 63-69.		0