

Sai Santosh Kumar Raavi

List of Publications by Year in descending order

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90
papers

2,525
citations

279798

23
h-index

197818

49
g-index

92
all docs

92
docs citations

92
times ranked

3847
citing authors

#	ARTICLE	IF	CITATIONS
1	Plasmonic Dye-Sensitized Solar Cells Using Core-Shell Metal-Insulator Nanoparticles. Nano Letters, 2011, 11, 438-445.	9.1	550
2	Ultrafast Dynamics of Exciton Fission in Polycrystalline Pentacene. Journal of the American Chemical Society, 2011, 133, 11830-11833.	13.7	394
3	Femtosecond and nanosecond nonlinear optical properties of alkyl phthalocyanines studied using Z-scan technique. Chemical Physics Letters, 2007, 447, 274-278.	2.6	167
4	Second harmonic generation and crystal growth of new chalcone derivatives. Journal of Crystal Growth, 2007, 303, 520-524.	1.5	97
5	Nonlinear absorption and scattering properties of cadmium sulphide nanocrystals with its application as a potential optical limiter. Journal of Applied Physics, 2006, 100, 074309.	2.5	73
6	Synthesis, Optical, Electrochemical, DFT Studies, NLO Properties, and Ultrafast Excited State Dynamics of Carbazole-Induced Phthalocyanine Derivatives. Journal of Physical Chemistry C, 2019, 123, 11118-11133.	3.1	70
7	Influence of Ion Induced Local Coulomb Field and Polarity on Charge Generation and Efficiency in Poly(3-Hexylthiophene)-Based Solid-State Dye-Sensitized Solar Cells. Advanced Functional Materials, 2011, 14.9 21, 2571-2579.		68
8	Boosting Infrared Light Harvesting by Molecular Functionalization of Metal Oxide/Polymer Interfaces in Efficient Hybrid Solar Cells. Advanced Functional Materials, 2012, 22, 2160-2166.	14.9	49
9	Ultrafast nonlinear optical properties of alkyl phthalocyanines investigated using degenerate four-wave mixing technique. Optical Materials, 2009, 31, 1042-1047.	3.6	45
10	Control over relaxor, piezo-photocatalytic and energy storage properties in Na _{0.5} Bi _{0.5} TiO ₃ via processing methodologies. Journal of Alloys and Compounds, 2019, 798, 540-552.	5.5	43
11	The effect of selective interactions at the interface of polymer-oxide hybrid solar cells. Energy and Environmental Science, 2012, 5, 9068.	30.8	42
12	The metal halide structure and the extent of distortion control the photo-physical properties of luminescent zero dimensional organic-antimony halide hybrids. Journal of Materials Chemistry C, 2021, 9, 348-358.	5.5	42
13	Enhanced Electrocaloric Effect and Energy Storage Density of Nd-Substituted 0.92NBT-0.08BT Lead Free Ceramic. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700915.	1.8	40
14	Ultrafast Energy Transfer in Ultrathin Organic Donor/Acceptor Blend. Scientific Reports, 2013, 3, 2073.	3.3	39
15	Linear and Nonlinear Optical Properties of Mesoionic Oxyallyl Derivatives: Enhanced Non-Resonant Third Order Optical Nonlinearity in Croconate Dyes. Journal of Physical Chemistry C, 2008, 112, 13272-13280.	3.1	35
16	Multifunctional Nd ³⁺ substituted Na _{0.5} Bi _{0.5} TiO ₃ as lead-free ceramics with enhanced luminescence, ferroelectric and energy harvesting properties. RSC Advances, 2018, 8, 15282-15289.	3.6	35
17	Nonlinear Optical Absorption and Switching Properties of Gold Nanoparticle Doped SiO ₂ -TiO ₂ Sol-Gel Films. Journal of Nanoscience and Nanotechnology, 2006, 6, 1990-1994.	0.9	34
18	Fabrication and optoelectronic characterisation of ZnO photonic structures. Materials Letters, 2008, 62, 1183-1186.	2.6	31

#	ARTICLE	IF	CITATIONS
19	Comparative photophysical and femtosecond third-order nonlinear optical properties of novel imidazole substituted metal phthalocyanines. <i>Dyes and Pigments</i> , 2021, 184, 108791.	3.7	31
20	Optoelectronic, femtosecond nonlinear optical properties and excited state dynamics of a triphenyl imidazole induced phthalocyanine derivative. <i>RSC Advances</i> , 2019, 9, 36726-36741.	3.6	29
21	Broadband supercontinuum generation in a single potassium di-hydrogen phosphate (KDP) crystal achieved in tandem with sum frequency generation. <i>Applied Physics B: Lasers and Optics</i> , 2007, 86, 615-621.	2.2	27
22	Femtosecond to Microsecond Dynamics of Soret-Band Excited Corroles. <i>Journal of Physical Chemistry C</i> , 2015, 119, 28691-28700.	3.1	27
23	Ultrafast nonlinear optical properties and excited-state dynamics of Soret-band excited D- β -D porphyrins. <i>Optical Materials</i> , 2020, 107, 110041.	3.6	27
24	Primary photo-events in a metastable photomerocyanine of spirooxazines. <i>Optical Materials Express</i> , 2011, 1, 293.	3.0	25
25	Lead-free zero dimensional tellurium(IV) chloride-organic hybrid with strong room temperature emission as a luminescent material. <i>Journal of Materials Chemistry C</i> , 2021, 9, 4351-4358.	5.5	25
26	Femtosecond laser direct writing of gratings and waveguides in high quantum efficiency erbium-doped Baccarat glass. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 205106.	2.8	24
27	Vacancies induced enhancement in neodymium doped titania photoanodes based sensitized solar cells and photo-electrochemical cells. <i>Solar Energy Materials and Solar Cells</i> , 2021, 220, 110843.	6.2	24
28	Correlation between structural, ferroelectric and luminescence properties through compositional dependence of Nd $^{3+}$ ion in lead free Na $_{0.5}$ Bi $_{0.5}$ TiO $_3$. <i>Journal of Alloys and Compounds</i> , 2018, 732, 233-239.	5.5	23
29	Ultrafast photophysical and nonlinear optical properties of novel free base and axially substituted phosphorus (V) corroles. <i>Journal of Molecular Liquids</i> , 2020, 311, 113308.	4.9	23
30	Low cost "green" dye sensitized solar cells based on New Fuchsin dye with aqueous electrolyte and platinum-free counter electrodes. <i>Solar Energy</i> , 2019, 188, 913-923.	6.1	21
31	Multistep Electron Injection Dynamics and Optical Nonlinearity Investigations of β -Extended Thioalkyl-Substituted Tetrathiafulvalene Sensitizers. <i>Journal of Physical Chemistry C</i> , 2020, 124, 24039-24051.	3.1	21
32	Ultrafast excited state dynamics and femtosecond nonlinear optical properties of laser fabricated Au and Ag $_{50}$ Au $_{50}$ nanoparticles. <i>Optical Materials</i> , 2019, 95, 109239.	3.6	19
33	Effect of polymer morphology on P3HT-based solid-state dye sensitized solar cells: an ultrafast spectroscopic investigation. <i>Optics Express</i> , 2013, 21, A469.	3.4	17
34	Nonlinear optical properties of alkyl phthalocyanines in the femtosecond, nanosecond, and cw excitation regimes. <i>Proceedings of SPIE</i> , 2008, , .	0.8	16
35	Optical studies of two dimensional gratings in fused silica, GE 124, and Foturan $^{\text{®}}$ glasses fabricated using femtosecond laser pulses. <i>Optics Communications</i> , 2009, 282, 4537-4542.	2.1	16
36	A photoanode with plasmonic nanoparticles of earth abundant bismuth for photoelectrochemical reactions. <i>Nanoscale Advances</i> , 2020, 2, 5591-5599.	4.6	15

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37	Panchromatic π -Dye-Doped Polymer Solar Cells: From Femtosecond Energy Relays to Enhanced Photo-Response. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 442-447.	4.6	14
38	Triple bulk heterojunctions as means for recovering the microstructure of photoactive layers in organic solar cell devices. <i>Solar Energy Materials and Solar Cells</i> , 2014, 120, 37-47.	6.2	14
39	Controlled Modulation of the Structure and Luminescence Properties of Zero-Dimensional Manganese Halide Hybrids through Structure-Directing Metal-Ion (Cd^{2+} and Tl^{+}) Coordination. <i>Journal of Physical Chemistry C</i> , 2014, 118, 16825-16830.	0.784314	10
40	Depolarization properties of the femtosecond supercontinuum generated in condensed media. <i>Physical Review A</i> , 2008, 78, .	2.5	13
41	Impact of Molecular Charge-Transfer States on Photocurrent Generation in Solid State Dye-Sensitized Solar Cells Employing Low-Band-Gap Dyes. <i>Journal of Physical Chemistry C</i> , 2014, 118, 16825-16830.	3.1	13
42	Linear and femtosecond nonlinear optical properties of soluble pyrrolo[1,2-a] quinoxalines. <i>Chemical Physics Letters</i> , 2019, 730, 638-642.	2.6	13
43	Er^{3+} doped titania photoanode for enhanced performance of photo-electrochemical water splitting devices. <i>Materials Letters</i> , 2021, 302, 130297.	2.6	13
44	Femtosecond excited-state dynamics and ultrafast nonlinear optical investigations of ethynylthiophene functionalized porphyrin. <i>Optical Materials</i> , 2022, 127, 112232.	3.6	13
45	Ultrafast intramolecular charge transfer dynamics and nonlinear optical properties of phenothiazine-based push-pull zinc porphyrin. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2022, 433, 114141.	3.9	12
46	A simple π - π system of phenanthroimidazole-fluorenone for highly efficient non-doped bipolar AIE luminogens: synthesis, and molecular optical, thermal and electrochemical properties. <i>New Journal of Chemistry</i> , 2020, 44, 1785-1794.	2.8	11
47	Ligand Structure Directed Dimensionality Reduction (2D \rightarrow 1D) in Lead Bromide Perovskite. <i>Journal of Physical Chemistry C</i> , 2020, 124, 1888-1897.	3.1	11
48	Enhanced electrical and photocatalytic activities in $\text{Na}_0.5\text{Bi}_0.5\text{TiO}_3$ through structural modulation by using anatase and rutile phases of TiO_2 . <i>Journal of Materiomics</i> , 2022, 8, 18-29.	5.7	11
49	Control of the polarization properties of the supercontinuum generation in a noncentrosymmetric crystal. <i>Optics Letters</i> , 2008, 33, 1198.	3.3	10
50	Small-Size Effects on Electron Transfer in P3HT/InP Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2015, 119, 26783-26792.	3.1	10
51	Enhancement in electrical and optical properties by substitution of lanthanides (Nd^{3+} and Eu^{3+}) in lead free $\text{Na}_0.5\text{Bi}_0.5\text{TiO}_3$ ceramics. <i>Ferroelectrics</i> , 2017, 518, 23-30.	0.6	9
52	Ultrafast Excited State Relaxation Dynamics of New Fuchsin-like Triphenylmethane Derivative Dye. <i>ChemPhysChem</i> , 2021, 22, 2562-2572.	2.1	9
53	Synergistic electronic coupling/cross-talk between the isolated metal halide units of zero dimensional heterometallic (Sb, Mn) halide hybrid with enhanced emission. <i>Journal of Materials Chemistry C</i> , 2021, 10, 360-370.	5.5	8
54	Nonlinear optical techniques for characterization of organic electronic and photonic devices. <i>European Physical Journal: Special Topics</i> , 2022, 231, 695-711.	2.6	8

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55	Quantum Dot Donor–Polymer Acceptor Architecture for a FRET-Enabled Solar Cell. ACS Applied Materials & Interfaces, 2019, 11, 18395-18403.	8.0	7
56	Femtosecond Third-Order Non-Linear Optical Properties of Unconstrained Green Fluorescence Protein Chromophores. Frontiers in Physics, 0, 10, .	2.1	7
57	Structural, impedance, and photoluminescence properties of Ho ³⁺ -substituted Na _{0.5} Bi _{0.5} TiO ₃ . Physica B: Condensed Matter, 2022, 639, 413926.	2.7	6
58	Photoactive Molecular Junctions Based on Self-Assembled Monolayers of Indoline Dyes. ACS Applied Materials & Interfaces, 2014, 6, 19774-19782.	8.0	5
59	Luminescent zinc(II) selone macrocyclic ring. RSC Advances, 2019, 9, 14841-14848.	3.6	5
60	Improved electrical and photoluminescence properties in Nd substitution of 0.94(Na _{0.5} Bi _{0.5} TiO ₃)-0.06BaTiO ₃ lead free multi-functional ceramics. Advanced Materials Letters, 2018, 9, 656-659.	0.6	4
61	Micro-Raman mapping of micro-gratings in Baccarat glass directly written using femtosecond laser. Proceedings of SPIE, 2008, , .	0.8	3
62	The effect on electrical and luminescent properties in nanocrystalline Na _{0.5} Bi _{0.5} xNd _x TiO ₃ . Materials Research Express, 2017, 4, 095019.	1.6	3
63	Annealing induced control of trap-assisted recombination in vacuum-deposited small-molecule solar cells. Materials Letters, 2021, 300, 130159.	2.6	3
64	Samarium-doped TiO ₂ photoanodes for the molecular devices for solar energy conversion. , 2021, , .		2
65	Ultrafast electron injection kinetics and effect of plasmonic silver nanoparticle at organic dye-TiO ₂ interface. Asian Journal of Physics, 2021, 30, 933.	0.2	2
66	Inscription and characterization of micro-structures in silicate, Foturan and tellurite glasses by femtosecond laser direct writing. Proceedings of SPIE, 2008, , .	0.8	1
67	Spectroscopic techniques to probe the charge generation and recombination in solid-state dye sensitized solar cells. , 2011, , .		1
68	Optimization of thermally evaporated small molecule ternary organic solar cells. , 2021, , .		1
69	Enhanced Broadband Emission in Novel Phenanthroimidazole Derivative Molecules via Excited State Intramolecular Proton Transfer. , 2020, , .		1
70	Enhanced broadband emission of co-doped (Nd-Er)TiO ₂ . , 2021, , .		1
71	Four wave mixing at air-dielectric interfaces with a femtosecond laser excitation. Optics Express, 2008, 16, 18034.	3.4	0
72	The structural evolution of photochromic reaction in Spirooxazine traced with sub-40fs transient absorption spectroscopy. , 2010, , .		0

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73	Semiconducting organic polymers as hole-transport layer in solid-state dye sensitized solar cells: comprehensive insights from femtosecond transient spectroscopy and device optimization. , 2012, , .		0
74	Transient absorption spectroscopic techniques for organic photovoltaics: tracking the photogenerated charges. , 2012, , .		0
75	Femtosecond to nanosecond excited states dynamics of novel Corroles. , 2014, , .		0
76	Focus issue introduction: Renewable energy and the environment 2013. Optics Express, 2014, 22, A561.	3.4	0
77	A lead free 0.96(Na0.5Bi0.49Nd0.01TiO3) -0.04BaTiO3 piezoceramic for possible optoelectronic device applications. AIP Conference Proceedings, 2018, , .	0.4	0
78	Improved ferroelectric and photoluminescence properties in Pr ³⁺ substituted Na0.5Bi0.5TiO3 synthesized using hydrothermal route. AIP Conference Proceedings, 2018, , .	0.4	0
79	Particle size dependent properties of Na0.5Bi0.5TiO3 synthesized using hydrothermal technique. AIP Conference Proceedings, 2019, , .	0.4	0
80	Femtosecond transient absorption studies of two novel energetic tetrazole derivatives. Chemical Physics Impact, 2021, 2, 100016.	3.5	0
81	Improved performances in annealed P3HT-based dye sensitized solar cells (DSSC): a detailed morphological and spectroscopic investigation. , 2011, , .		0
82	On the role of semiconducting polymer as hole-transport layer in solid-state dye sensitized solar cells. , 2012, , .		0
83	Ultrafast charge photogeneration in low band-gap semiconducting polymer based solid-state dye sensitized solar cell (sDSC). , 2014, , .		0
84	Femtosecond Transient Absorption and Nonlinear Optical Studies of a Novel Zinc Phthalocyanine. , 2019, , .		0
85	Ultrafast Photophysical Investigations of water-soluble triphenylmethane derivative (New Fuchsin) molecule. , 2020, , .		0
86	Plasmon Induced Ultrafast Excited State Interfacial Electron Dynamics of Tetrathiafulvalene Sensitizers. , 2020, , .		0
87	Femtosecond Transient Absorption Spectroscopy Studies of Ethynylthiophene Functionalized Porphyrin. , 2020, , .		0
88	Effect of electrical poling on the structural, dielectric and photoluminescence properties of small concentration of Ho ⁺³ substituted NBT. Journal of Physics: Conference Series, 2021, 2070, 012016.	0.4	0
89	Femtosecond nonlinear optical properties of -conjugated diketopyrrolopyrrole substituted porphyrin molecules. , 2021, , .		0
90	Femtosecond Excited State Dynamics of Phenanthroimidazole Derivative Molecules Through Excited State Intramolecular Proton Transfer. , 2021, , .		0