

# Sekhar C Ray

## List of Publications by Year in descending order

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116  
papers

4,396  
citations

159358

30  
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114278

63  
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121  
all docs

121  
docs citations

121  
times ranked

6962  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluorescent Carbon Nanoparticles: Synthesis, Characterization, and Bioimaging Application. Journal of Physical Chemistry C, 2009, 113, 18546-18551.	1.5	1,036
2	Carbon Nanoparticle-based Fluorescent Bioimaging Probes. Scientific Reports, 2013, 3, 1473.	1.6	642
3	High performance triboelectric nanogenerators based on phase-inversion piezoelectric membranes of poly(vinylidene fluoride)-zinc stannate (PVDF-ZnSnO <sub>3</sub> ) and polyamide-6 (PA6). Nano Energy, 2016, 30, 470-480.	8.2	134
4	Structure and photoconductive properties of dip-deposited SnS and SnS <sub>2</sub> thin films and their conversion to tin dioxide by annealing in air. Thin Solid Films, 1999, 350, 72-78.	0.8	125
5	The Effect of Thermal Reduction on the Photoluminescence and Electronic Structures of Graphene Oxides. Scientific Reports, 2014, 4, 4525.	1.6	106
6	Nickel-cobalt phosphate/graphene foam as enhanced electrode for hybrid supercapacitor. Composites Part B: Engineering, 2019, 174, 106953.	5.9	95
7	Correlation between Electronic Structures and Photocatalytic Activities of Nanocrystalline-(Au, Ag). Tj ETQq1 1 0.784314 rgBT /Overlocl	1.5	74
8	Functionalized graphene and graphene oxide solution via polyacrylate coating. Nanoscale, 2010, 2, 2777.	2.8	71
9	Tin dioxide based transparent semiconducting films deposited by the dip-coating technique. Surface and Coatings Technology, 1998, 102, 73-80.	2.2	61
10	Preparation and study of doped and undoped tin dioxide films by the open air chemical vapour deposition technique. Thin Solid Films, 1997, 307, 221-227.	0.8	57
11	Deposition and characterization of Zn Cd <sup>1+</sup> S thin films prepared by the dip technique. Thin Solid Films, 1998, 322, 117-122.	0.8	57
12	Spectroscopic analysis of a-C and a-CN <sub>x</sub> films prepared by ultrafast high repetition rate pulsed laser deposition. Journal of Applied Physics, 2005, 97, 073522.	1.1	57
13	Iron, nitrogen and silicon doped diamond like carbon (DLC) thin films: A comparative study. Thin Solid Films, 2016, 610, 42-47.	0.8	56
14	Graphene Supported Graphone/Graphane Bilayer Nanostructure Material for Spintronics. Scientific Reports, 2014, 4, 3862.	1.6	55
15	Nitrogen-Functionalized Graphene Nanoflakes (GNFs:N): Tunable Photoluminescence and Electronic Structures. Journal of Physical Chemistry C, 2012, 116, 16251-16258.	1.5	51
16	Thiolâ€Directed Synthesis of Highly Fluorescent Gold Clusters and Their Conversion into Stable Imaging Nanoprobes. Chemistry - A European Journal, 2013, 19, 943-949.	1.7	47
17	Paper based point of care immunosensor for the impedimetric detection of cardiac troponin I biomarker. Biomedical Microdevices, 2020, 22, 6.	1.4	46
18	Chemical Modification of Graphene Oxide by Nitrogenation: An X-ray Absorption and Emission Spectroscopy Study. Scientific Reports, 2017, 7, 42235.	1.6	43

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19	All-inorganic quantum dot assisted enhanced charge extraction across the interfaces of bulk organo-halide perovskites for efficient and stable pin-hole free perovskite solar cells. <i>Chemical Science</i> , 2019, 10, 9530-9541.	3.7	43
20	Electronic properties of $\text{a-}\text{CN}_x$ thin films: An x-ray-absorption and photoemission spectroscopy study. <i>Journal of Applied Physics</i> , 2005, 98, 033708.	1.1	42
21	Origin of magnetic properties in carbon implanted ZnO nanowires. <i>Scientific Reports</i> , 2018, 8, 7758.	1.6	40
22	Bimetallic Pd/SnO <sub>2</sub> Nanoparticles on Metal Organic Framework (MOF)-Derived Carbon as Electrocatalysts for Ethanol Oxidation. <i>Electrocatalysis</i> , 2019, 10, 366-380.	1.5	40
23	Effect of the Ca content on the electronic structure of $\text{Pb}_{1-x}\text{Ca}_x\text{TiO}_3$ perovskites. <i>Applied Physics Letters</i> , 2003, 83, 3311-3313.	1.5	39
24	X-ray absorption spectroscopy (XAS) study of dip deposited a-C:H(OH) thin films. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 5713-5719.	0.7	39
25	Highly efficient removal of chromium (VI) through adsorption and reduction: A column dynamic study using magnetized natural zeolite-polypyrrole composite. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 4008-4017.	3.3	39
26	Excitation energy dependence of Raman bands in multiwalled carbon nanotubes. <i>Journal of Raman Spectroscopy</i> , 2010, 41, 1227-1233.	1.2	38
27	Zeolitic Imidazolate Framework-8-Encapsulated Nanoparticle of Ag/Cu Composites Supported on Graphene Oxide: Synthesis and Antibacterial Activity. <i>ACS Omega</i> , 2020, 5, 9626-9640.	1.6	36
28	Thickness dependent electronic structure of ultra-thin tetrahedral amorphous carbon (ta-C) films. <i>Thin Solid Films</i> , 2012, 520, 2909-2915.	0.8	35
29	Atomistic nucleation sites of Pt nanoparticles on N-doped carbon nanotubes. <i>Nanoscale</i> , 2013, 5, 6812.	2.8	35
30	Silicon nanoparticle based fluorescent biological label via low temperature thermal degradation of chloroalkylsilane. <i>Nanoscale</i> , 2013, 5, 5732.	2.8	32
31	Defect induced room temperature ferromagnetism in single crystal, poly-crystal, and nanorod ZnO: A comparative study. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	32
32	Visualizing chemical states and defects induced magnetism of graphene oxide by spatially-resolved-X-ray microscopy and spectroscopy. <i>Scientific Reports</i> , 2015, 5, 15439.	1.6	31
33	Charge transfer in nanocrystalline-Au $\cdot$ ZnO nanorods investigated by x-ray spectroscopy and scanning photoelectron microscopy. <i>Applied Physics Letters</i> , 2007, 90, 192112.	1.5	29
34	Interrogating the impact of onion-like carbons on the supercapacitive properties of MXene (Ti <sub>2</sub> CTX). <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	29
35	Electronic structure and bonding properties of Si-doped hydrogenated amorphous carbon films. <i>Applied Physics Letters</i> , 2004, 85, 4022-4024.	1.5	28
36	The Electronic Properties of Nanomaterials Elucidated by Synchrotron Radiation $\cdot$ Based Spectroscopy. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2006, 31, 91-110.	6.8	27

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37	Electronic structures and bonding properties of chlorine-treated nitrogenated carbon nanotubes: X-ray absorption and scanning photoelectron microscopy studies. Applied Physics Letters, 2007, 90, 192107.	1.5	27
38	Synthesis and photocatalytic application of TiO <sub>2</sub> nanoparticles immobilized on polyacrylonitrile nanofibers using EDTA chelating agents. Materials Chemistry and Physics, 2017, 192, 108-124.	2.0	27
39	Electrical and electronic properties of nitrogen doped amorphous carbon (a-CN <sub>x</sub> ) thin films. Current Applied Physics, 2014, 14, 1845-1848.	1.1	26
40	Functional diamond like carbon (DLC) coatings on polymer for improved gas barrier performance. Diamond and Related Materials, 2017, 80, 59-63.	1.8	26
41	Expanding the portfolio of tribo-positive materials: Aniline formaldehyde condensates for high charge density triboelectric nanogenerators. Nano Energy, 2020, 67, 104291.	8.2	26
42	Graphene oxide (GO)/reduced-GO and their composite with conducting polymer nanostructure thin films for non-volatile memory device. Microelectronic Engineering, 2015, 146, 48-52.	1.1	25
43	Electronic, electrical and magnetic behaviours of reduced graphene-oxide functionalized with silica coated gold nanoparticles. Applied Surface Science, 2019, 483, 106-113.	3.1	25
44	Title is missing!. Journal of Materials Science Letters, 2000, 19, 803-804.	0.5	24
45	Tuning the Electronic and Magnetic Properties of Nitrogen-Functionalized Few-Layered Graphene Nanoflakes. Journal of Physical Chemistry C, 2017, 121, 14073-14082.	1.5	24
46	Electronic and magnetic properties of nitrogen functionalized graphene-oxide. Diamond and Related Materials, 2017, 79, 1-6.	1.8	24
47	Electronic and bonding structures of B-C-N thin films investigated by x-ray absorption and photoemission spectroscopy. Journal of Applied Physics, 2004, 96, 208-211.	1.1	23
48	Bifunctional Behavior of Pd/Ni Nanocatalysts on MOF-Derived Carbons for Alkaline Water-Splitting. Electroanalysis, 2020, 32, 3060-3074.	1.5	23
49	Tunable fluorescent carbon dots: synthesis progress, fluorescence origin, selective and sensitive volatile organic compounds detection. Critical Reviews in Solid State and Materials Sciences, 2021, 46, 349-370.	6.8	23
50	Deposition and Characterization of Diamond-Like Carbon Thin Films by Electro-Deposition Technique Using Organic Liquid. Journal of Materials Research, 2004, 19, 1126-1132.	1.2	22
51	Trigonal (1T) and hexagonal (2H) mixed phases MoS <sub>2</sub> thin films. Applied Surface Science, 2019, 474, 227-231.	3.1	22
52	Tuning of electronic and magnetic properties of multifunctional r-GO-ATA-Fe <sub>2</sub> O <sub>3</sub> -composites for magnetic resonance imaging (MRI) contrast agent. Journal of Applied Physics, 2019, 126, .	1.1	21
53	Increasing fuel cell durability during prolonged and intermittent fuel starvation using supported IrO <sub>x</sub> . Journal of Power Sources, 2021, 490, 229568.	4.0	21
54	Nanostructured porous carbons with high rate cycling and floating performance for supercapacitor application. AIP Advances, 2018, 8, .	0.6	20

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55	Amorphous carbon films prepared by the "œdip" technique: Deposition and film characterization. Journal of Applied Physics, 2003, 94, 870-878.	1.1	19
56	Electronic structures of group-III nitride nanorods studied by x-ray absorption, x-ray emission, and Raman spectroscopy. Applied Physics Letters, 2006, 88, 223113.	1.5	19
57	Carbon spheres for energy applications: Raman and X-ray photoemission spectroscopy studies. International Journal of Energy Research, 2014, 38, 444-451.	2.2	19
58	Tuning of magnetic behaviour in nitrogenated graphene oxide functionalized with iron oxide. Diamond and Related Materials, 2018, 89, 35-42.	1.8	19
59	Degradation of methyl orange on Fe/Ag nanoparticles immobilized on polyacrylonitrile nanofibers using EDTA chelating agents. Journal of Environmental Management, 2019, 236, 481-489.	3.8	19
60	Palladium/Stannic Oxide Interfacial Chemistry Promotes Hydrogen Oxidation Reactions in Alkaline Medium. ChemElectroChem, 2020, 7, 4562-4571.	1.7	19
61	Field emission effects of nitrogenated carbon nanotubes on chlorination and oxidation. Journal of Applied Physics, 2008, 104, 063710.	1.1	18
62	Size dependence of the electronic structures and electron-phonon coupling in ZnO quantum dots. Applied Physics Letters, 2007, 91, .	1.5	16
63	A comparative study of the electronic structures of oxygen- and chlorine-treated nitrogenated carbon nanotubes by x-ray absorption and scanning photoelectron microscopy. Applied Physics Letters, 2007, 91, 202102.	1.5	16
64	Polyacrylate grafted graphene oxide nanocomposites for biomedical applications. Journal of Applied Physics, 2020, 127, .	1.1	16
65	Change of Structural Behaviors of Organo-Silane Exposed Graphene Nanoflakes. Journal of Physical Chemistry C, 2010, 114, 8161-8166.	1.5	14
66	Facile Synthesis of Nitrogen Doped Graphene Oxide from Graphite Flakes and Powders: A Comparison of Their Surface Chemistry. Journal of Nanoscience and Nanotechnology, 2018, 18, 5470-5484.	0.9	14
67	Correlation among photoluminescence and the electronic and atomic structures of Sr <sub>2</sub> SiO <sub>4</sub> :xEu <sup>3+</sup> phosphors: X-ray absorption and emission studies. Scientific Reports, 2020, 10, 12725.	1.6	14
68	Nitrogen-doped carbon spheres: an X-ray absorption near-edge structure spectroscopy study. Applied Physics A: Materials Science and Processing, 2014, 115, 153-157.	1.1	13
69	Carbon nitride supported silver nanoparticles: a potential system for non-volatile memory application with high ON/OFF ratio. Journal of Materials Science: Materials in Electronics, 2019, 30, 8399-8406.	1.1	13
70	Electronic structure and magnetic behaviors of exfoliated MoS <sub>2</sub> nanosheets. Journal of Physics Condensed Matter, 2019, 31, 135501.	0.7	13
71	Electric and Ferro-Electric Behaviour of Polymer-Coated Graphene-Oxide Thin Film. Physics Procedia, 2013, 46, 62-70.	1.2	12
72	Electronic structure and field emission properties of nitrogen doped graphene nano-flakes (GNFs:N) and carbon nanotubes (CNTs:N). Applied Surface Science, 2016, 380, 301-304.	3.1	12

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73	Determination of the microstructure of Eu-treated ZnO nanowires by x-ray absorption. Applied Physics Letters, 2010, 96, 062112.	1.5	11
74	Tuning of the electronic structure and magnetic properties of xenon ion implanted zinc oxide. Journal Physics D: Applied Physics, 2018, 51, 095304.	1.3	11
75	Structure-Activity Relationships of Er <sup>3+</sup> and MWCNT-Modified TiO <sub>2</sub> : Enhancing the Textural and Optoelectronic Properties of TiO <sub>2</sub> . Journal of Physical Chemistry C, 2019, 123, 31246-31261.	1.5	11
76	Engineering of luminescent graphene quantum dot-gold (GQD-Au) hybrid nanoparticles for functional applications. MethodsX, 2020, 7, 100963.	0.7	11
77	Bonding properties and their relation to residual stress and refractive index of amorphous Ta(N,O) films investigated by x-ray absorption spectroscopy. Applied Physics Letters, 2005, 86, 161910.	1.5	10
78	High-Temperature Annealing Effects on Multiwalled Carbon Nanotubes: Electronic Structure, Field Emission and Magnetic Behaviors. Journal of Nanoscience and Nanotechnology, 2009, 9, 6799-805.	0.9	10
79	Local atomic and electronic structures and ferroelectric properties of PbZr <sub>0.52</sub> Ti <sub>0.48</sub> O <sub>3</sub> : An x-ray absorption study. Applied Physics Letters, 2011, 99, 042909.	1.5	10
80	Magnetic behavioural change of silane exposed graphene nanoflakes. Journal of Applied Physics, 2015, 118, 115302.	1.1	10
81	Organic Matrix Stabilized Ultra-Fine Bismuth Oxide Particles for Electrochemical Energy Storage Application. ChemistrySelect, 2018, 3, 12057-12064.	0.7	10
82	Layer-by-layer MoS <sub>2</sub> :GO composite thin films for optoelectronics device applications. Applied Surface Science, 2019, 479, 1118-1123.	3.1	10
83	Tuning the electronic and magnetic properties of PEDOT-PSS-coated graphene oxide nanocomposites for biomedical applications. Journal of Materials Research, 2020, 35, 2478-2490.	1.2	10
84	Effects of gold nanoparticles (Au-NPs) on the electrical properties of reduced graphene oxide: An experimental and DFT study. Journal of Materials Research, 2022, 37, 1037-1046.	1.2	9
85	Electronic, Electrical, and Magnetic Behavioral Change of SiO <sub>2</sub> -NP-Decorated MWCNTs. ACS Omega, 2019, 4, 14589-14598.	1.6	8
86	Bandgap Shrinkage and Charge Transfer in 2D Layered SnS <sub>2</sub> Doped with V for Photocatalytic Efficiency Improvement. Small, 2022, 18, e2105076.	5.2	8
87	Correlation between magnetic properties and the electronic structures of soft magnetic ternary Fe <sub>78-x</sub> Y <sub>x</sub> B <sub>22</sub> (x= 4-9) bulk metallic glasses. Journal of Physics Condensed Matter, 2008, 20, 465105.	0.7	7
88	ZnO nanorods decorated with nanocrystalline (nc) Au Particles: Electronic structure and magnetic behaviours. Journal of Alloys and Compounds, 2019, 797, 74-82.	2.8	7
89	X-ray absorption, photoemission and electron spin resonance studies of Ar <sup>+</sup> ion implanted ZnO. Journal of Electron Spectroscopy and Related Phenomena, 2018, 229, 68-74.	0.8	6
90	Anisotropy in the magnetic interaction and lattice-orbital coupling of single crystal Ni <sub>3</sub> TeO <sub>6</sub> . Scientific Reports, 2018, 8, 15779.	1.6	6

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91	Nitridation Temperature Effect on Carbon Vanadium Oxynitrides for a Symmetric Supercapacitor. <i>Nanomaterials</i> , 2019, 9, 1762.	1.9	6
92	Magnetic properties of graphene oxide functionalized with Au and Fe <sub>2</sub> O <sub>3</sub> nanoparticles: A comparative study. <i>Materials Today: Proceedings</i> , 2021, 44, 5037-5043.	0.9	6
93	Magnetic behaviors of single crystal-MoS <sub>2</sub> (MoS <sub>2</sub> -SC) and nanoparticle-MoS <sub>2</sub> (MoS <sub>2</sub> -NP) and bi-layer-MoS <sub>2</sub> thin film. <i>Journal of Magnetism and Magnetic Materials</i> , 2022, 546, 168863.	1.0	6
94	Temperature-Dependent Electronic Structure of TiO <sub>2</sub> Thin Film Deposited by the Radio Frequency Reactive Magnetron Sputtering Technique: X ray Absorption Near-Edge Structure and X ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2022, 126, 8947-8952.	1.5	6
95	Plasma modification of the electronic and magnetic properties of vertically aligned bi/tri-layered graphene nanoflakes. <i>RSC Advances</i> , 2016, 6, 70913-70924.	1.7	5
96	Microstructure and electronic properties of ultra-nano-crystalline-diamond thin films. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2020, 242, 146968.	0.8	4
97	Enhancement of sp <sup>3</sup> -bonding in high-bias-voltage grown diamond-like carbon thin films studied by x-ray absorption and photoemission spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 176204.	0.7	3
98	A facile method for the deposition of thermally stable diamond like carbon thin films via carbon dioxide precursor gas. <i>Diamond and Related Materials</i> , 2017, 73, 93-98.	1.8	3
99	Signature of Magnetization in Xe Ions Implanted ZnO: Correlation with Oxygen Defects as Probed by Photoelectron Spectroscopy. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 8494-8499.	0.9	3
100	Towards Practical Applications of EQCN Experiments to Study Pt Anchor Sites on Carbon Surfaces. <i>Electrocatalysis</i> , 2018, 9, 271-278.	1.5	3
101	Irradiation of Fe-Mn@SiO <sub>2</sub> with microwave energy enhanced its Fenton-like catalytic activity for the degradation of methylene blue. <i>Research on Chemical Intermediates</i> , 2021, 47, 4213-4226.	1.3	3
102	Facile fabrication of defect-induced 2D-stanene/stanene-oxide nano-sheet structure material through etching of SnO <sub>x</sub> thin film by the process of successive Ar <sup>+</sup> ion sputtering. <i>Journal of Materials Research</i> , 2022, 37, 1164-1171.	1.2	3
103	Effects of electronic structure and magnetic performance at the surface/interface of r-GO and TiO <sub>2</sub> in r-GO/TiO <sub>2</sub> composite thin films: X-ray absorption near-edge structure and x-ray photoelectron spectroscopy. <i>AIP Advances</i> , 2022, 12, 075101.	0.6	3
104	Comparison of Electronic Structure and Magnetic Properties of Few Layer Graphene and Multiwall Carbon Nanotubes. <i>Advances in Materials Science and Engineering</i> , 2016, 2016, 1-7.	1.0	2
105	Magnetic properties of microwave-plasma (thermal) chemical vapour deposited Co-filled (Fe-filled) multiwall carbon nanotubes: comparative study for magnetic device applications. <i>Materials Research Express</i> , 2018, 5, 076101.	0.8	2
106	Tuning of electronic and electrical behaviour of MWCNTs-TiO <sub>2</sub> nanocomposites. <i>Diamond and Related Materials</i> , 2019, 100, 107570.	1.8	2
107	Generalized synthesis of biomolecule-derived and functionalized fluorescent carbon nanoparticle. <i>Bulletin of Materials Science</i> , 2021, 44, 1.	0.8	2
108	Possible Ferro-electro-magnetic performance of reduced graphene oxide deposited on ZnO-nanorod decorated with nanocrystalline Au particles. <i>AIP Advances</i> , 2022, 12, .	0.6	2

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109	Electronic Structure, Electron Field Emission and Magnetic Behaviors of Carbon Nanotubes Fabricated on La <sub>0.66</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> (LSMO) for Spintronics Application. Journal of Nanoscience and Nanotechnology, 2011, 11, 10710-10714.	0.9	1
110	Ferroelectric behaviours of ultra-nano-crystalline diamond thin films. Surface and Coatings Technology, 2015, 271, 247-250.	2.2	1
111	Conduction Mechanisms in Polyvinyl Alcohol: CdS/CdS:Cu Nanoparticle Hybrid Nanocomposites. Journal of Nanoscience and Nanotechnology, 2018, 18, 1369-1375.	0.9	1
112	Structural, electronic, and electrical behaviour of MWCNTs: TiO <sub>2</sub> (:SiO <sub>2</sub> ) nanocomposites. Journal of Electron Spectroscopy and Related Phenomena, 2020, 245, 147002.	0.8	1
113	Low Temperature Ferromagnetic Behavior of Graphene Oxide (GO) and Molybdenum Disulphide (MoS <sub>2</sub> ) Hybrid Nanocomposite. Journal of Nanoscience and Nanotechnology, 2021, 21, 3320-3324.	0.9	1
114	Dia-Magnetic to Ferro-Magnetic Behavioral Change of Fe-Catalysts Based Nitrogenated Carbon Nanotubes (NCNTs) by the Process of Chlorination/Oxidation. Journal of Nanoscience and Nanotechnology, 2011, 11, 8269-8273.	0.9	0
115	Electronic properties, bonding structure and mechanical behaviours of a-CN <sub>x</sub> : Si (: B) thin films. Journal of Electron Spectroscopy and Related Phenomena, 2021, 252, 147122.	0.8	0
116	Broadbanding and multi-frequency in dielectric resonator antennas: a comprehensive review. International Journal of Microwave and Wireless Technologies, 0, , 1-17.	1.5	0