

# Sayantan Sil

## List of Publications by Year in descending order

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34  
papers

612  
citations

566801

15  
h-index

642321

23  
g-index

34  
all docs

34  
docs citations

34  
times ranked

545  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis of rGO@Zn <sub>0.8</sub> Cd <sub>0.2</sub> S via in situ reduction of GO for the realization of a Schottky diode with low barrier height and highly enhanced photoresponsivity. <i>New Journal of Chemistry</i> , 2017, 41, 5476-5486.	1.4	56
2	Analysis of interfaces in Bornite (Cu <sub>5</sub> FeS <sub>4</sub> ) fabricated Schottky diode using impedance spectroscopy method and its photosensitive behavior. <i>Materials Research Bulletin</i> , 2018, 106, 337-345.	2.7	53
3	Network analysis of semiconducting Zn <sub>1-x</sub> Cd <sub>x</sub> S based photosensitive device using impedance spectroscopy and current-voltage measurement. <i>Applied Surface Science</i> , 2017, 420, 566-578.	3.1	38
4	Bias dependent conduction and relaxation mechanism study of Cu <sub>5</sub> FeS <sub>4</sub> film and its significance in signal transport network. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 5014-5024.	1.1	37
5	Improvement of charge transport for hydrothermally synthesized Cd <sub>0.8</sub> Fe <sub>0.2</sub> S over co-precipitation method: A comparative study of structural, optical and magnetic properties. <i>Materials Science in Semiconductor Processing</i> , 2019, 91, 133-145.	1.9	32
6	Enhancement of Electrical Conductivity due to Structural Distortion from Linear to Nonlinear Dicarboxylato-Bridged Zn(II) 1D-Coordination Polymers. <i>Crystal Growth and Design</i> , 2019, 19, 2632-2641.	1.4	27
7	Effect of graphene on improved photosensitivity of MoS <sub>2</sub> -graphene composite based Schottky diode. <i>Materials Research Bulletin</i> , 2019, 118, 110507.	2.7	25
8	Improved charge transport properties of graphene incorporated tin oxide based Schottky diode over pure one. <i>Journal of Physics and Chemistry of Solids</i> , 2021, 148, 109706.	1.9	21
9	Investigation of Ion-Mediated Charge Transport in Methylammonium Lead Iodide Perovskite. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5515-5522.	1.5	20
10	Influence of Axial Linkers on Polymerization in Paddle-Wheel Cu(II) Coordination Polymers for the Application of Optoelectronics Devices. <i>Crystal Growth and Design</i> , 2019, 19, 6283-6290.	1.4	20
11	Exploring the studies of charge transportation of an aromatic acid based Co(II)-Metallogel scaffold fabricated Schottky device. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 160, 110300.	1.9	20
12	Temperature dependent properties of Al/rGO-ZnCdS Schottky diode and analysis of barrier inhomogeneities by double Gaussian distribution. <i>Materials Letters</i> , 2017, 204, 184-187.	1.3	19
13	Lattice-Defect-Induced Piezo Response in Methylammonium Lead Iodide Perovskite Based Nanogenerator. <i>ChemistrySelect</i> , 2018, 3, 5304-5312.	0.7	19
14	Photosensitive Schottky barrier diode behavior of a semiconducting Co(III)-Na complex with a compartmental Schiff base ligand. <i>RSC Advances</i> , 2019, 9, 34710-34719.	1.7	19
15	Defect induced room temperature ferromagnetism in methylammonium lead iodide perovskite. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2020, 384, 126278.	0.9	18
16	Positron Annihilation Spectroscopic Investigation on the Origin of Temperature-Dependent Electrical Response in Methylammonium Lead Iodide Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1745-1751.	2.1	17
17	Electronic charge transport phenomena directed smart fabrication of Metal-Semiconductor based electronic junction device by a supramolecular Mn(II)-Metallogel. <i>Journal of Molecular Liquids</i> , 2021, 338, 116769.	2.3	16
18	NMR study of defect-induced magnetism in methylammonium lead iodide perovskite. <i>Physical Review B</i> , 2020, 101, .	1.1	15

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19	Bias Voltage-Dependent Impedance Spectroscopy Analysis of Hydrothermally Synthesized ZnS Nanoparticles. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 2727-2733.	1.2	14
20	Designing of Pb(II)-Based Novel Coordination Polymers (CPs): Structural Elucidation and Optoelectronic Application. <i>ACS Omega</i> , 2019, 4, 19959-19968.	1.6	14
21	Sonochemical synthesis of nanospherical TiO <sub>2</sub> within graphene oxide nanosheets and its application as a photocatalyst and a Schottky diode. <i>FlatChem</i> , 2020, 22, 100180.	2.8	14
22	Equivalent circuit analysis of Al/rGO-TiO <sub>2</sub> metal-semiconductor interface via impedance spectroscopy: Graphene induced improvement in carrier mobility and lifetime. <i>Materials Science in Semiconductor Processing</i> , 2018, 82, 104-111.	1.9	12
23	Experimental and theoretical overview on bias dependent Debye relaxation and conduction mechanism of Cd <sub>1-x</sub> Zn <sub>x</sub> S film and its significance in signal transport network. <i>Materials Chemistry and Physics</i> , 2018, 213, 23-34.	2.0	12
24	Analysis of temperature dependent electrical performance of Al/CuO/ITO Schottky barrier diode and explanation of inhomogeneous barrier heights by double Gaussian distribution. <i>AIP Advances</i> , 2018, 8, .	0.6	12
25	Elucidation of Inhomogeneous Heterojunction Performance of Al/Cu <sub>5</sub> /FeS <sub>4</sub> Schottky Diode With a Gaussian Distribution of Barrier Heights. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 2082-2087.	1.6	12
26	Exploration of temperature dependent dielectric relaxation and correlated barrier hopping (CBH) conduction mechanism of hydrothermally synthesized CuO nanoflakes. <i>Materials Research Express</i> , 2019, 6, 1050d1.	0.8	11
27	Possibility to Use Hydrothermally Synthesized CuFeS <sub>2</sub> Nanocomposite as an Acceptor in Hybrid Solar Cell. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 2649-2654.	1.2	10
28	Energy-Inexpensive Galvanic Deposition of BiOI on Electrodes and Its Conversion to 3D Porous BiVO <sub>4</sub> -Based Photoanode. <i>Journal of Physical Chemistry C</i> , 2020, 124, 18930-18945.	1.5	9
29	Investigation of conduction kinetics in Al/CuInSe <sub>2</sub> Schottky device utilizing impedance spectroscopy (IS) measurement and study of its photosensing behaviour. <i>Journal of Physics and Chemistry of Solids</i> , 2021, 150, 109878.	1.9	6
30	Study of A.C. conductivity and dielectric behaviour of hydrothermally synthesised molybdenum disulphide. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 168-181.	1.1	5
31	Impedance Spectroscopy Study of Hydrothermally Synthesized Nano-semiconducting Bornite (Cu <sub>5</sub> FeS <sub>4</sub> )	1.0	3
32	Investigating the effect of applied bias on methylammonium lead iodide perovskite by electrical and positron annihilation spectroscopic studies. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 465502.	1.3	3
33	Anthracene-Based Fluorophore and Its Re(I) Complexes: Investigation of Electrical Properties and Schottky Diode Behavior. <i>ACS Omega</i> , 2020, 5, 29465-29476.	1.6	2
34	Development of large area nanostructured silicon-hydrogen alloy material with improved stability for solar cell application by argon dilution method. <i>Electronic Materials Letters</i> , 2016, 12, 456-461.	1.0	1