

# Sayan Bayan

## List of Publications by Citations

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39  
papers

580  
citations

14  
h-index

22  
g-index

42  
ext. papers

695  
ext. citations

4.4  
avg, IF

4.3  
L-index

#	Paper	IF	Citations
39	Highly Luminescent WS Quantum Dots/ZnO Heterojunctions for Light Emitting Devices. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 558-565	9.5	75
38	White light emission characteristics of two dimensional graphitic carbon nitride and ZnO nanorod hybrid heterojunctions. <i>Carbon</i> , <b>2016</b> , 108, 335-342	10.4	54
37	Efficient UV photosensitive and photoluminescence properties of sol-gel derived Sn doped ZnO nanostructures. <i>Sensors and Actuators A: Physical</i> , <b>2014</b> , 211, 8-14	3.9	50
36	Narrowing of band gap and effective charge carrier separation in oxygen deficient TiO <sub>2</sub> nanotubes with improved visible light photocatalytic activity. <i>Journal of Colloid and Interface Science</i> , <b>2016</b> , 465, 1-10	9.3	45
35	Defect mediated optical emission of randomly oriented ZnO nanorods and unusual rectifying behavior of Schottky nanojunctions. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 054316	2.5	39
34	Origin of Modified Luminescence Response in Reduced Graphitic Carbon Nitride Nanosheets. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 19383-19391	3.8	25
33	Piezo-phototronic mediated enhanced photodetection characteristics of plasmonic Au-g-CN/CdS/ZnO based hybrid heterojunctions on a flexible platform. <i>Nanoscale</i> , <b>2018</b> , 10, 19203-19217	7.7	21
32	Defect-dominated optical emission and enhanced ultraviolet photoconductivity properties of ZnO nanorods synthesized by simple and catalyst-free approach. <i>Applied Physics A: Materials Science and Processing</i> , <b>2014</b> , 115, 1193-1203	2.6	19
31	Directed growth characteristics and optoelectronic properties of Eu-doped ZnO nanorods and urchins. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 023512	2.5	18
30	Effect of 80-MeV nitrogen ion irradiation on ZnO nanoparticles: Mechanism of selective defect related radiative emission features. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2011</b> , 269, 374-379	1.2	18
29	Förster Resonance Energy Transfer Mediated Charge Separation in Plasmonic 2D/1D Hybrid Heterojunctions of Ag <sub>3</sub> CN <sub>4</sub> /ZnO for Enhanced Photodetection. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 3848-3856	5.6	17
28	Plasmon mediated enhancement of visible light emission of Au-ZnO nanocomposites. <i>Journal of Luminescence</i> , <b>2018</b> , 194, 15-21	3.8	17
27	Secondary ion mass spectrometry and photoluminescence study on microstructural characteristics of chemically synthesized ZnO nanowalls. <i>Applied Surface Science</i> , <b>2014</b> , 303, 233-240	6.7	17
26	Development of Tb-doped ZnO nanorods: Effect of nitrogen ion irradiation on luminescence and structural evolution. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2010</b> , 207, 1859-1863	1.6	17
25	ZnO nanorod-based UV photodetection and the role of persistent photoconductivity. <i>Philosophical Magazine</i> , <b>2012</b> , 92, 3909-3919	1.6	13
24	Self-powered flexible photodetectors based on Ag nanoparticle-loaded g-CN nanosheets and PVDF hybrids: role of plasmonic and piezoelectric effects. <i>Nanotechnology</i> , <b>2020</b> , 31, 365401	3.4	13
23	Enhancement of persistent photoconductivity of ZnO nanorods under polyvinyl alcohol encapsulation. <i>Materials Science in Semiconductor Processing</i> , <b>2014</b> , 24, 200-207	4.3	12

22	Superior Performance Self-Powered Photodetectors Utilizing the Piezo-Phototronic Effect in SnO Nanosheet/ZnO Nanorod Hybrid Heterojunctions. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 1716-1723	4	10
21	Plasmon mediated enhancement and tuning of optical emission properties of two dimensional graphitic carbon nitride nanosheets. <i>Nanotechnology</i> , <b>2017</b> , 28, 485204	3-4	9
20	Nanoengineered Conductive Polyaniline Enabled Sensor for Sensitive Humidity Detection. <i>IEEE Sensors Journal</i> , <b>2020</b> , 20, 12574-12581	4	8
19	Two-dimensional graphitic carbon nitride nanosheets: a novel platform for flexible, robust and optically active triboelectric nanogenerators. <i>Nanoscale</i> , <b>2020</b> , 12, 21334-21343	7-7	7
18	Nanoceutical Fabric Prevents COVID-19 Spread through Expelled Respiratory Droplets: A Combined Computational, Spectroscopic, and Antimicrobial Study. <i>ACS Applied Bio Materials</i> , <b>2021</b> , 4, 5471-5484	4-1	7
17	2D WS embedded PVDF nanocomposites for photosensitive piezoelectric nanogenerators with a colossal energy conversion efficiency of ~25.6. <i>Nanoscale</i> , <b>2021</b> , 13, 15819-15829	7-7	7
16	A comprehensive secondary ion mass spectrometry analysis of ZnO nanowalls: Correlation to photocatalytic responses. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 095304	2-5	6
15	Enhanced vacuum-photoconductivity of chemically synthesized ZnO nanostructures. <i>Philosophical Magazine</i> , <b>2014</b> , 94, 914-924	1-6	6
14	Significant Fowler-Nordheim tunneling across ZnO Nanorod based nanojunctions for nanoelectronic device applications. <i>Current Applied Physics</i> , <b>2013</b> , 13, 705-709	2-6	6
13	Fragmentation of elongated-shaped ZnO nanostructures into spherical particles by swift ion impact. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2013</b> , 54, 288-294	3	6
12	Role of cohesive energy on the interparticle coalescence behavior of dispersed nanoparticles subjected to energetic ion irradiation. <i>Journal of Materials Research</i> , <b>2010</b> , 25, 814-820	2-5	6
11	Interface engineered silver nanoparticles decorated g-C <sub>3</sub> N <sub>4</sub> nanosheets for textile based triboelectric nanogenerators as wearable power sources. <i>Nano Energy</i> , <b>2022</b> , 94, 106928	17-1	6
10	ZnS nanoparticle decorated ZnO nanowall network: investigation through electron microscopy and secondary ion mass spectrometry. <i>Surface and Interface Analysis</i> , <b>2015</b> , 47, 37-44	1-5	5
9	Rectification and Amplification of Ionic Current in Planar Graphene/Graphene-Oxide Junctions: An Electrochemical Diode and Transistor. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 11378-11384	3-8	5
8	Flexible Biomechanical Energy Harvesters with Colossal Piezoelectric Output (~2.07 V/kPa) Based on Transition Metal Dichalcogenides-Poly(vinylidene fluoride) Nanocomposites. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 3327-3335	4	5
7	Unusual Rectifying Response of Nanojunctions Using Randomly Oriented Nanorods (RON) of ZnO Irradiated with 80-MeV Oxygen Ions. <i>Journal of Electronic Materials</i> , <b>2012</b> , 41, 1955-1961	1-9	2
6	Peacock feather supported self assembled ZnO nanostructures for tuning photonic properties. <i>European Physical Journal D</i> , <b>2011</b> , 61, 463-468	1-3	2
5	Interplay of native defect-related photoluminescence response of ZnO nanosticks subjected to 80 keV Ar ion irradiation. <i>Radiation Effects and Defects in Solids</i> , <b>2011</b> , 166, 884-893	0-9	2

4	Nanocetical Fabric Prevents COVID-19 Spread through Expelled Respiratory Droplets: A Combined Computational, Spectroscopic and Anti-microbial Study		2
3	Development of Triboelectroceutical Fabrics for Potential Applications in Self-Sanitizing Personal Protective Equipment.. <i>ACS Applied Bio Materials</i> , <b>2021</b> , 4, 5485-5493	4.1	1
2	Modified photoluminescence and photodetection characteristics of chemically grown SnO coated ZnO nanoneedles. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , <b>2016</b> , 34, 061201	1.3	1
1	Boron Carbonitride Nanosheet/ZnO Nanorod Heterojunctions for White-Light Emission. <i>ACS Applied Nano Materials</i> , <b>2021</b> , 4, 8572-8585	5.6	1