Centre for Nanoscience and Nanotechnology

Jamia Millia Islamia

New Delhi

			2023	2024	2025	2026	Subtotal	>2026	Total
Publication Year	**Document Title**	**Journal Title**	**805**	**937**	**1084**	**160**	**5249**	**0**	**5325**
2025	2D MXene: From synthesis to storage - Exploring their potential as sparking materials for hydrogen storage	Hybrid Advances	0	0	0	2	2	0	2
2025	Colorimetric Sensing of Mercury with Machine Learning Based on Nanozyme Activity of Chitosan Functionalized MXene/ZIF-L Nanocomposite	Advanced Materials Technologies	0	0	1	0	1	0	1
2025	Enhanced supercapacitor performance of Ti_3C_2Tx/MoS_2 heterostructure	Materials Science and Engineering B	0	0	1	4	5	0	5
2025	Machine learning-driven optimization and compositional experimental validation of polythiophene/graphene nanoplatelet nanocomposite for symmetric supercapacitor	Composites Communications	0	0	0	1	1	0	1
2025	Synthesis of carbon quantum dots decorated titanium disilicide: a novel hybrid solar-driven photocatalyst for sustainable wastewater treatment	Journal of Materials Chemistry A	0	0	1	1	2	0	2
2025	Novel Z-scheme 2D/3D photocatalyst: Bismuth vanadate/zinc selenide for enhanced photocatalytic degradation of organic pollutants	Surfaces and Interfaces	0	0	0	1	1	0	1
2025	Novel ternary Z scheme carbon quantum dots (CQDs) decorated WS_2/PANI ((CQDs@WS_2/PANI):0D:2D:1D) nanocomposite for the photocatalytic degradation and electrochemical detection of pharmaceutical drugs	Nano Materials Science	0	1	10	6	17	0	17
2025	Z-Scheme Enabled 1D/2D Nanocomposite of ZnO Nanorods and Functionalized g-C_3 N_4 Nanosheets for Sustainable Degradation of Terephthalic Acid	Chemsuschem	0	0	3	1	4	0	4
2025	Performance analysis of doped zigzag graphene nanoribbon-based device for practical electronic applications using first principle approach	Computational Materials Science	0	0	4	1	5	0	5
2025	Recent Advances of Colossal Magnetoresistance in Versatile La-Ca-Mn-O Material-Based Films	Magnetochemistry	0	0	2	1	3	0	3
2025	Hyperparameter tuned machine learning predictions of specific capacitance of conducting polymers	Applied Physics A Materials Science and Processing	0	0	3	1	4	0	4

	and their composites for high performance advanced supercapacitors								
2024	An overview on synthesis of MXene and MXene based nanocomposites for supercapacitors	Materials Today Communications	0	3	14	2	19	0	19
2024	Highly responsive MoS_2/MoO_3 heterojunction based broadband photodetector	Optical Materials	0	0	3	1	4	0	4
2024	Enhanced Photodetection Performance of WSe_2/V_2O_5 Nanocomposite on Flexible Substrate: Synergistic Advantages and Improved Efficiency	ACS Applied Materials and Interfaces	0	1	14	1	16	0	16
2024	Electrochemical impedimetric aptasensor for the detection of Urea based on oxidized graphitic carbon nitride utilizing flexible electrode platform	Journal of Materials Science Materials in Electronics	0	0	1	0	1	0	1
2024	Bifunctional CuO nanostructured materials preparation for ethanol gas and riboflavin sensing applications	Sensors and Actuators B Chemical	0	5	6	1	12	0	12
2024	Optimizing graphene content in scaffolds for evenly distributed crumpled MoS_2 paper wads as anodes for high-performance Li-ion batteries	Nanotechnology	0	0	5	1	6	0	6
2024	Electrochemical Riboflavin Detection Using 2D Nanoflake-Like CuO Nanostructure Modified Electrodes	Journal of the Electrochemical Society	0	0	2	0	2	0	2
2024	Evaluating the photocatalytic properties of zinc sulfide and zinc indium sulfide microspheres: A comparative approach	Journal of Materials Research	0	0	1	1	2	0	2
2024	Advancements in Trace and Low Humidity Sensors Technologies Using Nanomaterials: A Review	ACS Applied Nano Materials	0	2	14	3	19	0	19
2024	Detection of uterine cancer biomarker EGFR through an aptasensor utilizing a carbon electrode modified with silver nanowires	Materials Chemistry and Physics	0	1	3	0	4	0	4
2024	Hydrothermal Synthesis and Characterization of WSe_2 Nanosheets: A Promising Approach for Wearable Photodetector Applications	ACS Applied Bio Materials	0	8	28	3	39	0	39
2024	$PdSe_2/MoSe_2$: a promising van der Waals heterostructure for field effect transistor application	Nanotechnology	0	1	2	0	3	0	3
2024	Unveiling stability: Surface amidation-mediated covalent	Flatchem	0	2	1	0	3	0	3

	coupling for diminished volumetric changes in silicon/reduced graphene oxide (Si/RGO) composites as Li-ion battery anodes								
2024	An Electroanalytical Enzymeless α-Fe_2O_3-ZnO Hybrid Nanostructure-Based Sensor for Sensitive Quantification of Nitrite Ions	Nanomaterials	0	1	6	0	7	0	7
2024	3D Printing Technology in the Pharmaceutical and Biomedical Applications: A Critical Review	Biomedical Materials and Devices	0	6	17	1	24	0	24
2024	Advanced photocatalytic degradation of textile dyes and removal of heavy metal ions from MFe_2O_4 using photo-Fenton mechanism	Journal of Materials Science Materials in Electronics	0	4	5	0	9	0	9
2024	Optimization of WS_2 modified polyaniline for superior photocatalytic degradation and electrochemical detection of pharmaceutical drug	Flatchem	0	6	6	0	12	0	12
2024	Ultrafast dynamics of excitons and charge carriers in Van der Waals WS_2 nanotubes	Materials Today Chemistry	0	0	1	0	1	0	1
2024	Light-Assisted $AgMoS_2$ and $PdMoS_2$ Hybrid Gas Sensors for Room-Temperature Detection of Ammonia	ACS Applied Nano Materials	0	1	6	0	7	0	7
2024	Tuning the optoelectronic properties of reduced graphene Oxide@MoS_2 nanocomposite for room temperature photodetection application	Flatchem	0	3	9	2	14	0	14
2024	Structural and thermoelectric properties of $MoSe_2$/CNT nanocomposites	Journal of Physics and Chemistry of Solids	0	3	11	3	17	0	17
2023	2D-MXenes to tackle wastewater: From purification to SERS-based sensing	Coordination Chemistry Reviews	6	36	37	8	87	0	87
2023	WS_2 nanosheets modified via ZnO nanorods (2D/1D) nanocomposite: An efficient photocatalyst for the removal of Cr (VI), humic acid and textile dyes from wastewater	Ceramics International	1	7	15	2	25	0	25
2023	A graphene oxide (GO)-porous anodic alumina (PAA) bilayer system: How GO dispersion regulates the lower RH detection limit to near zero in conjugation with PAA	Journal of Materials Chemistry C	0	2	2	0	4	0	4
2023	Novel mesoporous nanocomposite of WS_2/ZIF-9 for efficient adsorption of textile dyes from wastewater	Flatchem	0	6	12	2	20	0	20

2023	Co_3O_4 hexagonal nanodisks: Synthesis and efficient ethanol gas sensing application	Surfaces and Interfaces	0	5	7	0	12	0	12
2023	Ecofriendly blue emissive ZnO-graphene nanocomposite and its application as superior catalytic reduction of methyl orange and congo red	Journal of Sol Gel Science and Technology	0	2	6	0	8	0	8
2023	High performance symmetric reduced graphene oxide/polyaniline/tellurium supercapacitor electrodes	Nanotechnology	0	3	0	0	3	0	3
2023	Fabrication of a highly sensitive ultrathin nanosheet-like CuO nanostructure-based non-enzymatic electrochemical sensor for hydrazine detection	New Journal of Chemistry	0	1	4	0	5	0	5
2023	Electrochemical Sensing of Uric Acid with Zinc Oxide Nanorods Decorated with Copper Oxide Nanoseeds	ACS Applied Nano Materials	0	17	25	5	47	0	47
2023	Aptamer-based silver nanoparticle decorated paper platform for electrochemical detection ovarian cancer biomarker PDGF	Materials Chemistry and Physics	0	2	11	0	13	0	13
2023	Growth and characterization of screen printed TiO_2–CuO thick films for optoelectronic applications	Physica B Condensed Matter	0	3	1	0	4	0	4
2023	van der Waals Materials for Overcoming Fundamental Limitations in Photonic Integrated Circuitry	Nano Letters	2	15	16	0	33	0	33
2023	Enhancing photocatalytic performance: a study of anionic (congo red, orange-g) and cationic (malachite green) dye degradation using WSe_2 and $WSe_2/ZnIn_2S_4$ nanocomposite	Advances in Natural Sciences Nanoscience and Nanotechnology	0	0	1	0	1	0	1
2023	Sol-gel synthesis of $ZrFeO_3$ nanoparticles and study of optical nonlinearity and multiferroicity of its nanocrystalline thin films	Journal of Sol Gel Science and Technology	1	1	1	0	3	0	3
2023	Excellent Seebeck coefficient observed in exfoliated N-type Tungsten Disulphide (WS_2)	Materials Science in Semiconductor Processing	1	4	1	1	7	0	7
2023	Breaking Boundaries in LED Technology: Exploring the Revolutionary Diode Characteristics of Screen Printed $(TiO_2)_{1-x}$ $(CuO)_x$ Thick Films	Ecs Journal of Solid State Science and Technology	0	1	0	1	2	0	2
2023	Fabrication of multiwalled carbon nanotubes/MoS_2 nanocomposite: Application as temperature sensor	Flatchem	0	8	7	0	15	0	15
2023	Integrated hydrothermal-green	Physica B	0	1	1	0	2	0	2

	approach to synthesize Fe, Ag doped copper sulfide nanopowders and investigations of their thermoelectric properties	Condensed Matter							
2023	The effects of Ar + N_2 plasma power-based attachment of metal nanoparticles on the electron field emission properties of carbon nanotubes	Journal of Physics and Chemistry of Solids	1	0	2	0	3	0	3
2023	Synergistic effect of polypyrrole modified WS_2 nanosheets on visible light assisted catalysis for the removal of chromium (VI) and humic acid	Materials Research Bulletin	5	12	8	1	26	0	26
2023	Recent trends in the fabrication of photodetectors: A detailed analysis on the photodetection properties of new 2D-TMCs	Materials Today Communications	1	2	6	1	10	0	10
2023	Slow Cooling and Transfer Dynamics of Hot Excitons in $CsPbBr_3$Perovskite Quantum Dots/g-CN Nanosheet Heterostructures: Implications for Optoelectronic Applications	ACS Applied Nano Materials	0	5	4	0	9	0	9
2023	Graphene/macrocylic Yb nanocomposite as counter electrode in dye sensitized solar cell	Optical Materials	0	5	2	0	7	0	7
2023	Development of high-performance broadband optical detector for cryogenic to elevated operating temperature	Materials Science in Semiconductor Processing	3	3	5	1	12	0	12
2023	Role of temperature on CdS and MoS_2 doped SnO_2 nanostructures: Potential applications in photodetection and temperature dependent current-voltage characteristics	Journal of Alloys and Compounds	3	11	5	0	19	0	19
2023	Third-order optical nonlinearity and multiferroicity of nanoparticles thin films of isovalent rare earth Y_{3+} ion substituted $BiFeO_3$	Physica B Condensed Matter	2	5	3	1	11	0	11
2023	Nanostructured Ruddlesden-Popper-Layered Lead Bromide Perovskites with Stable and Selected Wavelength for Photodetection Applications	ACS Applied Nano Materials	4	3	12	0	19	0	19
2023	Insight into Hot Carrier Kinetics of $CsPbBr_3$/ZnO Heterostructures for Photodetector Application	ACS Applied Optical Materials	1	7	6	1	15	0	15
2023	Influence of the growth temperature on electron field-emission stability of the carbon nanotubes' field emitters	Journal of Materials Research	0	0	1	1	2	0	2

2023	A comparative photocatalytic degradation study of cationic and anionic dyes using $ZnIn_2S_4$ photocatalyst	Advances in Natural Sciences Nanoscience and Nanotechnology	2	3	4	0	9	0	9
2023	A systematic review on 2D MoS_2 for nitrogen dioxide (NO_2) sensing at room temperature	Materials Today Communications	10	16	24	0	50	0	50
2023	Enhanced photocatalytic degradation of Rhodamine B and Methylene blue by novel TiO_2/SnSe-SnO_2 hybrid nanocomposites under sunlight irradiation: Correlation of photoluminescence property with photocatalytic activity	Materials Research Bulletin	4	14	8	3	29	0	29
2023	Lattice-Distortion-Induced Change in the Magnetic Properties in Br-Defect Host $CsPbBr_3$ Perovskite Quantum Dots	Journal of Physical Chemistry Letters	1	0	1	0	2	0	2
2023	Influence of power-dependent Argon gas plasma treatment on the electron field emission properties of carbon nanotube field-emitters	Diamond and Related Materials	1	2	2	0	5	0	5
2023	Hexagonal cobalt oxide nanosheet-based enzymeless electrochemical uric acid sensor with improved sensitivity	New Journal of Chemistry	5	13	13	2	33	0	33
2023	Metal Oxide Nanocomposite Thin Films: Optical and Electrical Characterization	Metal Oxide Nanocomposite Thin Films for Optoelectronic Device Application	0	2	5	1	8	0	8
2023	Metal halide perovskite nanomaterials for battery applications	Advances in Electronic Materials for Clean Energy Conversion and Storage Applications	0	0	1	1	2	0	2
2023	Introduction to advanced electronic materials for clean energy applications	Advances in Electronic Materials for Clean Energy Conversion and Storage Applications	0	2	1	0	3	0	3
2023	Role of Functionalized Carbon Nanotubes in Antimicrobial Activity: A Review	Functionalized Carbon Nanotubes for Biomedical Applications	0	3	2	0	5	0	5
2023	Enhancement in NO_2 sensing properties of SWNTs: A detailed analysis on functionalization of SWNTs with Z-Gly-OH	Journal of Materials Science Materials in Electronics	3	8	5	0	16	0	16
2022	Understanding of temperature-dependent photoluminescence in graphite and SixZnO(1-x) tri-composite nanostructure	Optical Materials	2	1	2	0	5	0	5

2022	Low-cost synthesis of lanthanides (Eu3+and Sm3+)-intercalated TiO_2 nanostructures: a detailed study on structural, optical and photocatalytic applications	Journal of Materials Science Materials in Electronics	0	5	2	1	8	0	8
2022	Thermal sensitivity study of thin film over-layered SAW devices for sensor applications	Inorganic Chemistry Communications	3	2	1	0	6	0	6
2022	Towards Improved Detectivity and Responsivity Using Graphene Nanoribbons with Width of 10–15 nm for Photodetection Applications	Journal of Electronic Materials	1	3	0	0	4	0	4
2022	Temperature-dependent Raman spectroscopy and thermal conductivity of TiS_2 hexagonal nanodiscs	Materials Science in Semiconductor Processing	3	1	4	0	8	0	8
2022	Realization of Microfluidic Preconcentrator for N-Pentane Traces Impurities from the Gaseous Media	Materials	1	0	0	0	1	0	1
2022	Advances in transition metal dichalcogenides-based flexible photodetectors	Journal of Materials Science Materials in Electronics	3	8	4	0	15	0	15
2022	Field-Effect Transistor Based on 2D Microcrystalline MoS_2 Film Grown by Sulfurization of Atomically Layer Deposited MoO_3	Nanomaterials	4	2	1	0	7	0	7
2022	Sensitivity enhancement analysis of frequency tuned-SAW resonator with temperature for sensor applications	Sensing and Bio Sensing Research	2	1	1	0	5	0	5
2022	Impact of NiO nano-particles on colossal magneto-resistance of $La_{0.70}Ca_{0.30}MnO_3$ composite	Materials Letters X	2	0	3	1	6	0	6
2022	Mechanical ball milling: A sustainable route to induce structural transformations in tungsten disulfide for its photocatalytic applications	Physica E Low Dimensional Systems and Nanostructures	13	8	6	1	31	0	31
2022	A non-enzymatic electrochemical sensor composed of nano-berry shaped cobalt oxide nanostructures on a glassy carbon electrode for uric acid detection	New Journal of Chemistry	16	12	20	3	53	0	53
2022	Insertion of metal cations into hybrid organometallic halide perovskite nanocrystals for enhanced stability: eco-friendly synthesis, lattice strain engineering, and defect chemistry studies	Nanoscale Advances	4	5	2	1	12	0	12
2022	CO sensing properties of nanostructured WSe_2/GaN and $MoSe_2$/GaN based gas sensors	Physica E Low Dimensional Systems and Nanostructures	5	7	11	2	26	0	26

2022	Dynamic synthesis of CdTe NRs: Diameter dependent tuning of PL quenching efficiency for sensitive organic vapor detection	Journal of Alloys and Compounds	0	0	1	0	2	0	2
2022	The synergistic effect of acid-etched g-C_3N_4 nanosheets and polyaniline nanofibers for the adsorption and photocatalytic degradation of textile dyes: a study of charge transfer mechanism and intermediate products	Materials Advances	16	7	11	1	39	0	39
2022	Study the electron field emission properties of silver nanoparticles decorated carbon nanotubes-based cold-cathode field emitters via post-plasma treatment	Journal of Materials Science Materials in Electronics	2	2	3	1	8	0	8
2022	Performance optimization of silicon-doped titanium dioxide and multiwalled carbon nanotubes tricomposite nanostructures for electrical and optical applications	Journal of Materials Science Materials in Electronics	2	4	1	0	9	0	9
2022	Wide-Linear Range Cholesterol Detection Using Fe_2O_3Nanoparticles Decorated ZnO Nanorods Based Electrolyte-Gated Transistor	Journal of the Electrochemical Society	7	9	9	0	28	0	28
2022	Ultrafast, trace-level detection of NH_3 gas at room temperature using hexagonal-shaped ZnO nanoparticles grown by novel green synthesis technique	Physica B Condensed Matter	6	7	2	2	21	0	21
2022	Electrochemistry-Concepts and methodologies	Electrochemical Sensors from Working Electrodes to Functionalization and Miniaturized Devices	1	4	0	0	6	0	6
2022	Biosensors	Electrochemical Sensors from Working Electrodes to Functionalization and Miniaturized Devices	3	4	4	1	13	0	13
2022	A Detailed Study on Carbon Nanotubes: Properties, Synthesis, and Characterization	Chemically Modified Carbon Nanotubes for Commercial Applications	1	1	0	0	2	0	2
2022	Review on Polyaniline-Based Composites With and Without Binder as Advanced Supercapacitor Electrode Materials	Materials Horizons from Nature to Nanomaterials	0	2	0	1	3	0	3
2022	Hydrogen production activity of MoS_2-$ZnIn_2S_4$ nanocomposite under visible light irradiation	Materials Today Proceedings	3	1	3	0	7	0	7

2022	Time-dependent resonating plasma treatment of carbon nanotubes for enhancing the electron field emission properties	Journal of Materials Science Materials in Electronics	4	3	4	0	13	0	13
2022	Encapsulation of Cu-doped TiO_2 nanocomposites with the understanding of weak photocatalytic properties for sunscreen applications	Journal of Dispersion Science and Technology	1	1	2	1	6	0	6
2022	Nano-donuts shaped nickel oxide nanostructures for sensitive non-enzymatic electrochemical detection of glucose	Microsystem Technologies	2	1	5	0	13	0	13
2022	Eu doped $NaYF_4$@Er:TiO_2 nanoparticles for tunable ultraviolet light based anti-counterfeiting applications	Microsystem Technologies	6	1	6	0	22	0	22
2022	Fabrication of an ultra-sensitive hydrazine sensor based on nano-chips shaped nickel hydroxide modified electrodes	Microsystem Technologies	0	0	1	0	4	0	4
2021	Improved electrochemical performance of symmetric polyaniline/activated carbon hybrid for high supercapacitance: Comparison with indirect capacitance	Polymers for Advanced Technologies	7	8	5	0	27	0	27
2021	A highly sensitive uric acid biosensor based on vertically arranged ZnO nanorods on a ZnO nanoparticle-seeded electrode	New Journal of Chemistry	6	7	6	3	33	0	33
2021	Study the electron field emission properties of plasma-based reduction of graphene oxide (GO): An ex-situ plasma approach	Carbon Trends	1	4	1	0	8	0	8
2021	Development of ultra-sensitive broadband photodetector: a detailed study on hidden photodetection-properties of TiS_2 nanosheets	Journal of Materials Research and Technology	9	9	3	1	28	0	28
2021	E-textile based wearable thermometer from WS_2-quantum dots	Nanotechnology	1	0	4	0	7	0	7
2021	Understanding the stability concerns and electronic structure of $CsYbX_3$ (X=Cl,Br) halidoperovskites for optoelectronic applications	Journal of Alloys and Compounds	5	9	4	0	27	0	27
2021	Growth and characterization of crystalline $BaSnO_3$ perovskite nanostructures and the influence of heavy Mn doping on its properties	Journal of Alloys and Compounds	7	5	7	1	30	0	30
2021	Engineered CuO Nanofibers with Boosted Non-Enzymatic Glucose Sensing Performance	Journal of the Electrochemical Society	13	10	10	0	54	0	54

2021	Anodic stripping voltammetry analysis of gold nanoparticles functionalized one-dimensional single polypyrrole nanowire for arsenic sensing	Surfaces and Interfaces	6	4	5	1	22	0	22
2021	ZnO for stable and efficient perovskite bulk heterojunction solar cell fabricated under ambient atmosphere	Solar Energy	8	5	2	1	27	0	27
2021	Thermal stability of dielectric and energy storage performances of Ca-substituted BNTZ ferroelectric ceramics	Ceramics International	8	11	5	1	44	0	44
2021	Room temperature synthesis of colossal magneto-resistance of La2/3Ca1/3MnO3: Ag0.10 composite	Ecs Journal of Solid State Science and Technology	1	1	4	1	10	0	10
2021	Reversible synthesis of GO: Role of differential bond structure transformation in fine-tuning photodetector response	Nanotechnology	0	2	2	0	8	0	8
2021	Synthesis of marigold-like ZnIn2S4 microspheres at low-temperature	Materials Today Proceedings	2	2	0	0	5	0	5
2021	Surface modification via silver nanoparticles attachment: An ex-situ approach for enhancing the electron field emission properties of CNT field emitters	Materials Today Proceedings	1	1	2	0	6	0	6
2021	CsPbBr3Nanoplatelets: Synthesis and Understanding of Ultraviolet Light-Induced Structural Phase Change and Luminescence Degradation	Ecs Journal of Solid State Science and Technology	8	2	1	0	13	0	13
2021	Review—Emerging applications of g-C3N4 films in perovskite-based solar cells	Ecs Journal of Solid State Science and Technology	5	2	6	0	17	0	17
2021	Architectural Design of Electrode Material for Supercapacitor Application Based on a MoS2/CeO2Heterostructure Synthesized by Facile Hydrothermal Technique	Ecs Journal of Solid State Science and Technology	8	3	3	2	21	0	21
2021	Interface kinetics assisted barrier removal in large area 2d-ws2 growth to facilitate mass scale device production	Nanomaterials	0	0	0	0	3	0	3
2021	Engineered hierarchical CuO nanoleaves based electrochemical nonenzymatic biosensor for glucose detection	Journal of the Electrochemical Society	26	15	20	1	113	0	113
2021	Apparatus-dependent sol-gel synthesis of TiO2 nanoparticles for dye-sensitized solar cells	Journal of Dispersion Science and Technology	1	0	1	0	9	0	9
2020	Highly sensitive hydrazine detection using a vertically oriented ZnO	Journal of the Electrochemical	3	2	3	0	31	0	31

	nanosheet-based field-effect transistor	Society							
2020	A single step in-situ process for improvement in electron emission properties of surface-modified carbon nanotubes (CNTs): Titanium dioxide nanoparticles attachment	Diamond and Related Materials	3	4	6	0	21	0	21
2020	Thin film chemiresistive gas sensor on single-walled carbon nanotubes-functionalized with polyethylenimine (PEI) for NO 2 gas sensing	Bulletin of Materials Science	14	4	7	1	41	0	41
2020	Titania-based porous nanocomposites for potential environmental applications	Bulletin of Materials Science	0	1	2	0	13	0	13
2020	Electrochemical Multiplexed Paper Nanosensor for Specific Dengue Serotype Detection Predicting Pervasiveness of DHF/DSS	ACS Biomaterials Science and Engineering	9	11	10	0	46	0	46
2020	WS_2Quantum Dots on e-Textile as a Wearable UV Photodetector: How Well Reduced Graphene Oxide Can Serve as a Carrier Transport Medium?	ACS Applied Materials and Interfaces	9	17	8	5	65	0	65
2020	Polymeric nanostructures for photocatalytic dye degradation: polyaniline for photocatalysis	SN Applied Sciences	6	15	9	3	48	0	48
2020	Screen printed TiO_2film: A candidate for photovoltaic applications	Materials Research Express	6	2	1	0	16	0	16
2020	Inter-dependency between surface morphology and sensitive low RH detection: Exploration of an intricate mechanism to extend the lower detection limit	Nanoscale Advances	4	3	2	0	15	0	15
2020	Improved ion-diffusion assisted uniform growth of 1D CdS nanostructures for enhanced optical and energy storage properties	Applied Surface Science	1	0	2	0	11	0	11
2020	Performance analysis of anomalous photocatalytic activity of Cr-doped TiO_2 nanoparticles [$Cr(x)TiO_{2(1-x)}$]	Applied Physics A Materials Science and Processing	5	11	14	1	38	0	38
2020	Self-standing MWCNTs based gas sensor for detection of environmental limit of CO_2	Materials Science and Engineering B	12	8	8	1	51	0	51
2020	New Concept in Humidity Sensing: Role of Molecular Brownian Energy and Probabilistic Mean Free Path to differentiate RH- And Trace Level Detection	ACS Applied Materials and Interfaces	5	2	1	1	12	0	12
2020	Single-walled carbon nanotubes–polyaniline composites: Synthesis and field-emission analysis	Journal of Composite Materials	1	0	1	0	2	0	2
2020	Ultra thin NiO nanosheets for high	Applied Surface	38	30	30	2	181	0	181

	performance hydrogen gas sensor device	Science							
2020	Analysis on the synthesis of vertically aligned carbon nanotubes: growth mechanism and techniques	Journal of Materials Science Materials in Electronics	7	12	6	3	48	0	48
2020	A comparative photocatalytic study of pure and acid-etched template free graphitic C_3N_4 on different dyes: An investigation on the influence of surface modifications	Materials Chemistry and Physics	12	7	7	0	43	0	43
2020	A review on 2D transition metal di-chalcogenides and metal oxide nanostructures based NO_2 gas sensors	Materials Science in Semiconductor Processing	30	36	39	6	174	0	174
2020	Hydrothermally Synthesized Nickel Oxide Nanosheets for Non-Enzymatic Electrochemical Glucose Detection	Journal of the Electrochemical Society	17	6	12	0	73	0	73
2020	Graphene Oxide (GO) Nanocomposite Based Room Temperature Gas Sensor	Materials Horizons from Nature to Nanomaterials	0	0	3	1	6	0	6
2020	Interfacial charge carrier dynamics of the $MoSe_2$-conducting polymer ($MoSe_2$-PANI) heterojunction	Materials Today Proceedings	4	3	3	1	12	0	12
2020	Prunus: A natural source for synthesis of zinc oxide nanoparticles towards photocatalytic and antibacterial applications	Materials Today Proceedings	3	4	3	0	18	0	18
2020	Carbon based electrocatalysts	Methods for Electrocatalysis Advanced Materials and Allied Applications	0	0	0	0	1	0	1
2020	Review-recent advances in the development of carbon nanotubes based flexible sensors	Journal of the Electrochemical Society	7	9	8	0	52	0	52
2020	Review - Recent Advances in Nanostructured Graphitic Carbon Nitride as a Sensing Material for Heavy Metal Ions	Journal of the Electrochemical Society	14	6	10	1	77	0	77
2019	Vertically aligned multi-walled carbon nanotubes based flexible immunosensor for extreme low level detection of multidrug resistant leukemia cells	Sensors and Actuators B Chemical	4	2	2	1	20	0	20
2019	Synthesis of highly reproducible CdTe nanotubes on anodized alumina template and confinement study by photoluminescence and Raman spectroscopy	Journal of Alloys and Compounds	3	1	2	1	20	0	20
2019	Structural effect of SWCNTs grown by PECVD towards NH_3 gas sensing and field emission properties	Materials Research Bulletin	2	1	2	0	14	0	14

2019	Influence of pH and Fe doping on structural and physical properties of Mg0.95Mn0.05-xFexO (x = 0, 0.04) nanoparticles	Journal of Physics and Chemistry of Solids	0	1	0	0	3	0	3
2019	Superior photocatalytic activity of tungsten disulfide nanostructures: role of morphology and defects	Applied Nanoscience Switzerland	14	11	14	0	80	0	80
2019	Facile field emission characteristics of polyaniline doped with MgB_2 nanowires	Materials Research Express	0	0	1	0	1	0	1
2019	Graphene quantum dot arrays: Pros and cons of photodetection in the Coulomb blockade regime	Carbon	2	4	3	0	18	0	18
2019	Fabrication of sensitive SWCNT sensor for trace level detection of reducing and oxidizing gases (NH_3 and NO_2) at room temperature	Physica E Low Dimensional Systems and Nanostructures	1	2	1	0	11	0	11
2019	Temperature and electric field treatment of the rhombohedral PMN-PT single crystals	Ferroelectrics	1	0	0	0	1	0	1
2019	Broadband photodetector based on 3D architect of MoS_2 -PANI hybrid structure for high photoresponsive properties	Polymer	2	8	4	1	34	0	34
2019	Zinc oxide nanoflowers synthesized by sol-gel technique for field emission displays (feds)	Materials Today Proceedings	3	10	3	2	26	0	26
2019	Fabrication of sinws/graphene nanocomposite for ir sensing	Materials Today Proceedings	0	2	1	0	5	0	5
2019	Architectural design of photodetector based on 2D (MoS_2 nanosheets)/1D (WS_2 nanorods) heterostructure synthesized by facile hydrothermal method	Journal of the Electrochemical Society	9	7	7	0	37	0	37
2019	Investigation of fundamental and higher harmonic AC magnetic susceptibility of $FeSe_{0.5}Te_{0.5}$ superconductor	Materials Research Express	0	0	1	0	1	0	1
2019	An ultrafast quantum thermometer from graphene quantum dots	Nanoscale Advances	3	3	1	0	17	0	17
2018	Hydrothermally synthesized micron sized, broom-shaped $MoSe_2$ nanostructures for superior photocatalytic water purification	Materials Research Express	10	11	7	4	61	0	61
2018	Synthesis of highly dense and vertically aligned array of SWCNTs using a catalyst barrier layer: High performance field emitters for devices	Physica B Condensed Matter	1	1	2	0	12	0	12
2018	Pronounced light trapping effect and enhanced photo-electrochemical property of type (II) aligned graphitic-C_3N_4 with embedded 1-D ZnO nanostructures	Iop Conference Series Materials Science and Engineering	0	0	0	0	1	0	1

2018	A review on chemiresistive gas sensors based on carbon nanotubes: Device and technology transformation	Sensors and Actuators A Physical	21	9	7	2	87	0	87
2018	Leukemia biomarker detection by using photoconductive response of CNT electrode: Analysis of sensing mechanism based on charge transfer induced Fermi level fluctuation	Sensors and Actuators B Chemical	3	1	1	1	17	0	17
2018	A comparative study of structural and electrical properties in lead-free BCZT ceramics: Influence of the synthesis method	Acta Materialia	25	16	23	1	122	0	122
2018	Hydrothermal synthesis of MoS_2 nanosheets for multiple wavelength optical sensing applications	Sensors and Actuators A Physical	27	27	23	3	138	0	138
2018	Modification of electrical properties of silicon dioxide through intrinsic nano-patterns	Materials Research Express	1	1	0	0	2	0	2
2018	Enhancement of sensor response of as fabricated SWCNT sensor with gold decorated nanoparticles	Sensors and Actuators A Physical	1	1	2	0	14	0	14
2018	Multiwall carbon nanotubes/polyaniline: Poly-m-toulidine: Poly-o-toulidine nanocomposites—Synthesis, properties & field emission	Polymer Composites	0	0	2	0	7	0	7
2018	Effect of dispersion on omnidirectional reflection band in zinc oxide-based one-dimensional photonic crystal heterostructures	Journal of Nanophotonics	1	0	1	0	5	0	5
2018	Reduced graphene oxide based temperature sensor: Extraordinary performance governed by lattice dynamics assisted carrier transport	Sensors and Actuators B Chemical	14	15	18	2	112	0	112
2018	Effect of 3d transition metal doping (Co, Ni and Cu) on structural, optical, morphological and dielectric properties of sol–gel assisted auto-combusted $Mg_{0.95}Mn_{0.05}O$ nanoparticles	Journal of Materials Science Materials in Electronics	2	1	1	0	14	0	14
2018	A multi-prong approach towards the development of high performance Temperature sensor using MWCNTs/Al_2O_3 composite film	Materials Research Bulletin	0	1	1	0	9	0	9
2018	Concentration specific and tunable photoresponse of bismuth vanadate functionalized hexagonal ZnO nanocrystals based photoanodes for photoelectrochemical application	Solid State Sciences	5	4	2	0	25	0	25
2018	Development of highly sensitive optical sensor from carbon nanotube-alumina nanocomposite	Sensors and Actuators A Physical	4	1	1	0	29	0	29

	free-standing films: CNTs loading dependence sensor performance Analysis								
2017	Synthesis of carbon nanotubes using green plant extract as catalyst: Unconventional concept and its realization	Applied Nanoscience Switzerland	18	14	12	1	89	0	89
2017	CNFET Based Voltage Differencing Transconductance Amplifier	Iop Conference Series Materials Science and Engineering	0	0	0	0	1	0	1
2017	Enhancement in alcohol vapor sensitivity of Cr doped ZnO gas sensor	Materials Research Bulletin	11	9	3	3	70	0	70
2017	Magnetic Susceptibility and High Field Magneto-transport of Silver-Added Bi-2223 Superconductor: a Revisit	Journal of Superconductivity and Novel Magnetism	0	1	2	0	5	0	5
2017	A new approach for orientation-controlled growth of CNTs: an in-depth analysis on the role of oxygen plasma treatment to catalyst	Applied Nanoscience Switzerland	1	1	0	0	18	0	18
2017	Copper-doped modified ZnO nanorods to tailor its light assisted charge transfer reactions exploited for photo-electrochemical and photo-catalytic application in environmental remediation	Applied Physics A Materials Science and Processing	5	2	3	0	34	0	34
2017	Growth of single wall carbon nanotubes using PECVD technique: An efficient chemiresistor gas sensor	Physica E Low Dimensional Systems and Nanostructures	0	1	1	0	17	0	17
2017	Fowler Nordheim theory of carbon nanotube based field emitters	Physica B Condensed Matter	4	7	2	1	35	0	35
2017	Oxygen and nitrogen doping in single wall carbon nanotubes: An efficient stable field emitter	Journal of Alloys and Compounds	2	2	1	0	19	0	19
2016	Optimization of porous anodic alumina nanostructure for ultra high sensitive humidity sensor	Sensors and Actuators B Chemical	7	5	8	0	53	0	53
2016	Carbon nanotubes in Li-ion batteries: A review	Materials Science and Engineering B	27	24	21	4	173	0	173
2016	Decoration of zinc oxide nanoparticles on vertically aligned single wall carbon nanotubes: An efficient field emitter	Materials Research Bulletin	2	3	1	0	23	0	23
2016	Realization of structural and optical properties of CdZnO composite coated films for photovoltaic cell applications	Optik	2	1	0	0	19	0	19
2016	Optical properties of ZnO/SnO_2 composite coated film	Optik	4	1	3	0	23	0	23

2016	Gel-cast - A promising technique to develop highly sensitive temperature sensor	Materials Research Bulletin	1	1	0	1	11	0	11
2016	An Intercomparison of the Upper Critical Fields (H c 2) of Different Superconductors—YBa2Cu3 O 7, MgB2, NdFeAsOo . 8 F o . 2, FeSeo . 5Teo . 5 and Nb2PdS5	Journal of Superconductivity and Novel Magnetism	5	1	2	0	19	0	19
2016	Resistive sensing of gaseous nitrogen dioxide using a dispersion of single-walled carbon nanotubes in an ionic liquid	Materials Research Bulletin	2	0	1	0	9	0	9
2016	Structural and optical characteristics of transparent conducting yttrium doped ZnO films using screen printing technology	Journal of Materials Science Materials in Electronics	0	1	0	1	8	0	8
2016	Introduction to nanomaterials	Advanced Structured Materials	1	2	1	0	9	0	9
2016	Investigation on the physical properties of Zno.94Cuo.06O coated film	Optik	0	0	0	0	11	0	11
2016	Improvement in granularity of NdFeAsOo.8Fo.2 superconductor through Agx doping (x = 0.0-0.3)	Physica C Superconductivity and Its Applications	0	0	1	0	1	0	1
2015	Novel composites of Zn1−xCdxO (x = 0, 0.05, 0.1) thick films for optoelectronic device application	Journal of Materials Science Materials in Electronics	1	0	0	0	15	0	15
2015	Highly efficient Ceramic-SWCNT based free standing films for gas sensing application	Materials Science in Semiconductor Processing	1	0	0	0	7	0	7
2015	Improved field emission properties of carbon nanotubes by dual layer deposition	Journal of Experimental Nanoscience	1	0	1	0	10	0	10
2015	Investigation of physical properties of screen printed nanosized ZnO films for optoelectronic applications	EPJ Applied Physics	2	0	1	0	16	0	16
2015	Influence of thermo-mechanical processing on microstructure, mechanical properties and corrosion behavior of a new metastable β-titanium biomedical alloy	Bulletin of Materials Science	0	1	2	0	8	0	8
2015	Role of defect density in optimizing MWCNT-polymer composite sensor performance: Tuning of its acceptable limit by acid treatment condition	Science of Advanced Materials	0	0	0	0	1	0	1
2015	Synthesis and characterization of screen printed ZnO films for solar cell applications	Optik	2	4	0	0	27	0	27
2015	Fine-tuning control on CNT diameter distribution, length and density using thermal CVD growth	Applied Nanoscience Switzerland	3	3	1	0	37	0	37

	at atmospheric pressure: an in-depth analysis on the role of flow rate and flow duration of acetylene (C_2H_2) gas								
2015	Precise control over physical characteristics of carbon nanotubes by differential variation of Argon flow rate during chemical vapor deposition processing: A systematic study on growth kinetics	Materials Science in Semiconductor Processing	3	0	2	0	17	0	17
2015	Silver Nanoparticles in Comparison with Ionic Liquid and rGO as Gate Dopant for Paper–Pencil-Based Flexible Field-Effect Transistors	Journal of Electronic Materials	0	0	0	0	9	0	9
2015	Spectroscopic analysis of multi-walled carbon nanotube-alumina composite films: Optimization of temperature coefficient of resistance and thermal hysteresis for thermal sensor applications	Materials Science in Semiconductor Processing	2	2	3	0	19	0	19
2014	A comparative study of nitrogen plasma effect on field emission characteristics of single wall carbon nanotubes synthesized by plasma enhanced chemical vapor deposition	Applied Surface Science	0	1	0	0	17	0	17
2014	Development of MWCNTs-based wideband photodetector in the visible range: wavelength and power-dependent response studies	Applied Physics A Materials Science and Processing	0	0	0	0	7	0	7
2014	MWCNT-conducting polymer composite based ammonia gas sensors: A new approach for complete recovery process	Sensors and Actuators B Chemical	14	11	13	3	195	0	195
2014	Porous silicon surface stability: A comparative study of thermal oxidation techniques	Journal of Porous Materials	0	0	2	0	21	0	21
2014	Fe dopants enhancing ethanol sensitivity of ZnO thin film deposited by RF magnetron sputtering	Journal of Materials Science	1	8	2	0	26	0	26
2014	Superconductivity at 25 K under hydrostatic pressure for FeTe 0. 5 Se 0. 5 superconductor	Journal of Superconductivity and Novel Magnetism	0	0	2	0	6	0	6
2014	Phase transformation-dependent sensing performance of multi-walled carbon nanotube-alumina nanocomposite-based gas sensors	Materials Science in Semiconductor Processing	0	0	1	0	5	0	5
2014	Omnidirectional reflector using one-dimensional dispersive photonic heterostructure	Optik	2	0	2	0	19	0	19
2014	Catalyst free, excellent quality and narrow diameter of CNT growth on Al_2O_3 by a thermal CVD technique	Physica E Low Dimensional Systems and	0	0	1	0	27	0	27

		Nanostructures							
2014	Structural, electrical and magnetic behaviour of FeTe0.5Se 0.5 superconductor	Journal of Superconductivity and Novel Magnetism	0	1	0	0	16	0	16
2014	Development of commercial trace moisture sensor: A detailed comparative study on microstructural and impedance measurements of two phases of alumina	Electronic Materials Letters	6	1	3	1	15	0	15
2013	Polymer optimization for the development of low-cost moisture sensor based on nanoporous alumina thin film	Journal of Advanced Ceramics	1	1	2	0	7	0	7
2013	Surface modification of MWCNTs by O_2 plasma treatment and its exposure time dependent analysis by SEM, TEM and vibrational spectroscopy	Superlattices and Microstructures	3	1	3	0	22	0	22
2013	Nanoporous alumina (γ- and α-phase) gel cast thick film for the development of trace moisture sensor	Journal of Sol Gel Science and Technology	1	3	2	0	17	0	17
2013	Field emission behaviour of the single wall carbon nanotubes grown by plasma enhanced chemical vapour deposition (PECVD) system	Journal of Nano and Electronic Physics	0	0	0	0	10	0	10
2013	Transfer of microstructure pattern of CNTs onto flexible substrate using hot press technique for sensing applications	Materials Research Bulletin	2	1	1	0	27	0	27
2013	Development of MWCNTs/alumina composite-based sensor for trace level ammonia gas sensing	Applied Physics A Materials Science and Processing	1	1	0	0	14	0	14
2013	Investigation of effects produced by chemical functionalization in single-walled and multi-walled carbon nanotubes using Raman spectroscopy	Materials Science Poland	1	1	1	1	11	0	11
2012	Nanoporous morphology of alumina films prepared by sol-gel dip coating method on alumina substrate	Journal of Sol Gel Science and Technology	0	1	0	0	17	0	19
2012	Field emission study of carbon nanotubes forest and array grown on Si using fe as catalyst deposited by electro-chemical method	Journal of Nanoscience and Nanotechnology	1	0	0	0	21	0	23
2012	Dynamical response of the non-linear vibration of single-wall carbon nanotubes (SWCNTs)	Journal of Computational and Theoretical Nanoscience	0	0	0	0	6	0	7

2012	Development and standardization of porous silicon for application as a working electrode in electrochemical immunosensor	Proceedings of SPIE the International Society for Optical Engineering	0	0	0	0	3	0	3
2012	Deposition of pristine and functionalized MWCNTs in alumina matrix by sol-gel technique and investigation of their ammonia sensing properties	Nanomaterials and Nanotechnology	1	0	0	1	7	0	9
2012	Nanoporous silicon based electrochemical immunosensor	Science of Advanced Materials	0	0	0	0	10	0	12
2012	Biomedical applications of diamond-like nanocomposite thin films	Science of Advanced Materials	0	0	0	0	7	0	10
2011	Field-emission study of multi-walled carbon nanotubes grown on Si substrate by low pressure chemical vapor deposition	Journal of Nano and Electronic Physics	0	1	0	0	5	0	6
2011	Aligned nanogold assisted one step sensing and removal of heavy metal ions	Journal of Colloid and Interface Science	2	3	0	0	37	0	41
2011	Effect of catalyst-deposition methods on the alignment of carbon nanotubes grown by low pressure chemical vapor deposition	Nanoscience and Nanotechnology Letters	0	0	0	1	6	0	9
2011	Estimation of effective emitting area of carbon nanotubes based field emitters	Nanoscience and Nanotechnology Letters	0	0	0	0	11	0	14
2009	Size-selective laser-induced etching of semi-insulating GaAs: Photoluminescence studies	Physica E Low Dimensional Systems and Nanostructures	0	0	0	0	3	0	6
2007	Raman study on single-walled carbon nanotubes with different laser excitation energies	Bulletin of Materials Science	0	1	1	0	18	0	23
2006	Quantum confinement effects in silicon nanocrystals produced by laser-induced etching and cw laser annealing	Semiconductor Science and Technology	0	1	1	0	23	0	43
2006	Spectroscopic investigation of porous GaAs prepared by laser-induced etching	Journal of Non Crystalline Solids	0	0	0	0	8	0	14
2006	Characterization of carbon nanotubes grown on Fe70Pd 30 film	Physica B Condensed Matter	0	0	0	0	2	0	7
2006	Method for determination of nature of single-wall carbon nanotubes (SWCNTs) in a bundle prepared by chemical vapor deposition technique	IEICE Electronics Express	0	0	0	0	1	0	4
2004	Laser-induced etching of Cr-O doped GaAs and wavelength dependent photoluminescence	Materials Chemistry and Physics	0	0	0	0	1	0	4

2004	Surface morphology and formation of GaAs nanocrystals by laser-induced etching: SEM, PL and Raman studies	Materials Science and Engineering B	0	0	0	0	3	0	11