Publications of Physics faculty

Total number of Publications = 215
Publications in Scopus Indexed Journals = 194
Publications in Web of Science Indexed Journals = 01
Publications in UGC care Journals = 03
Publications in Peer Reviewed Journals = 17

Research Publications (July 2022-June 2023)

S. No.	Authors	Title	Journal details	Year	Scopus indexed/ peer reviewed
1	**Verma, M.;** Kumar, A.; Lal, L.; Khandelwal, D.; Tomar, P. K.; Dheer, N. ; Hooda, S.; **Bhatia, M.**; Sachdeva, S.; Kumari, V.	Ni^{2+} ion sensitive sustainable sensors based on 4-vinyl pyridine-ethyl acrylate copolymer	Applied Chemical Engineering, 6 (1), 38-47	2023	Scopus Indexed
2	Badawi, M. N.; **Bhatia, M.;** Ramesh, S.; Ramesh, K.; Kuniyil, M.; Shaik, M. R.; Khan, M.; Shaik, B.; Adil, S. F.	Self-healing, flexible and smart 3d hydrogel electrolytes based on alginate/PEDOT: PSS for supercapacitor applications	Polymers 15 (3), 571	2023	Scopus Indexed
3	Badawi, M. N.; **Bhatia, M.;** Ramesh, S.; Ramesh, K.; Khan, M.; Adil S. F.	Enhancement of the Performance Properties of Pure Cotton Fabric by Incorporating Conducting Polymer (PEDOT: PSS) for Flexible and Foldable Electrochemical Applications	Journal of Electronic Materials, 52, 2201–2215	2023	Scopus Indexed
4	Badawi, M. N.; Batoo, K. M.; **Bhatia**, **M.;** Subramaniam, R. T.; Kasi,	Construction of solid state cotton batteries with safety features of electrolytes/electrodes: A review	Materials Today Communications, 34, 104949	2023	Scopus Indexed

	R.; Verma R.				
5	**Bhatia, M .;**.Gupta, S.	Space Dependent Study of Fast Neutron Spectra and Tritium ProductionRate in a Fusion Reactor Blanket of Li_2O	Indian Journal of Pure & Applied Physics, 60, 833-840	2022	Scopus Indexed
6	**Verma, M.; Raj, V. B.; Rani, S.**	Enhancement of Carrier Mobility and Bandgap in Plastically Deformed Bi Single Crystal.	J Low Temp Phys., 211(3-4), 138-155	2023	Scopus Indexed
7	**Verma, M.;** Gautam, D.; Yadav, R.; Kumar, V.; Hooda, S.; Dheer, N.	Role of functionalized Chitin-EDTA as a promising adsorbent for water purification	Rasayan Journal of Chemistry, 16(2), 660-666	2023	Scopus Indexed
8	Kumar, A.; **Chowdhuri, A.**; Tomar, M.; Singh, M.	Boost in the Electromagnetic Shielding Effectiveness of Polystyrene–Polyaniline Composites by Addition of Carbon Nanofibers	Arabian Journal for Science and Engineering, 48:1009–1019.	2023	Scopus Indexed
9	Lamichhane, S.; Sharma, S.; Tomar, M.; **Chowdhuri, A**	Effect of variation in glancing angle deposition on resistive switching property of WO_3 thin films for RRAM devices	J. Appl. Phys. 132, 134102.	2022	Scopus Indexed
10	Lamichhane, S.; Sharma, S.; Tomar, M.; **Chowdhuri, A.**	Impact of laser energy on resistive switching properties of $BiFeO_3$ thin films	Materials Chemistry and Physics 293, 126824.	2023	Scopus Indexed
11	Kumar, S.; Garg, A.; **A. Chowdhuri**	Mildly reduced graphene oxide membranes for water purification applications	Nano Express	2022	Web of Science (ESCI) indexed, IOP Publications
12	Deb, S.; Baruah, A.; **Kumar, Subhash.**	Ensemble-based unsupervised machine learning method for membership determination of open clusters using	Monthly Notices of Royal Astronomical Society(MNRAS), 515,	2022	Scopus Indexed

		Mahalanobis distance	4685–4701		
13	**Joshi, R.**	Two-photon Bound to Bound Transitions under Strong Screening Potential	Eur. Phy. J. Plus, 137:996.	2022	Scopus Indexed
14	**Joshi, R.**; Goyal, A.; Kumar, P.; Mohan, M.	Theoretical analysis of relativistic energy corrections, partition function and thermodynamic properties of spherically confined hydrogen atom	Eur. Phy. J. D, 76:149	2022	Scopus Indexed
15	**Joshi, R.**	Fine structure calculations, polarizability and oscillator strengths for C VI ion embedded in Debye plasma applying accurate Numerov method, Spectroscopy Letters	Spectroscopy Letters. 56(5), 273-282,	2023	Scopus Indexed
16	**Joshi, R.**; Kumar, P.; Jha, A. K. S.; Mohan, M.	Above Threshold Ionization spectra for Debye plasma embedded atom interacting with femtosecond laser pulse	Spectroscopy Letters. 56(4), 194-203	2023	Scopus Indexed
17	Johari, R.; **Sonker, R. K.**; Victor, O.; Khan, Z. H.; Aggarwal, D.; Gupta, S.; Kumar, S.	Optoelectronic Study of Polymer Electrolyte Incorporated Perovskite Sensitized Solar Cell	Macromol. Symp., 407, 2200126	2023	Scopus Indexed
18	Agrahari, K,; SK Trivedi, RR Awasthi, Nautiyal, VK ; **Sonker, R. K.**; Manohar, R.	Dielectric, electro-optical and spectroscopic properties of silver doped zinc oxide-ferroelectric liquid crystal composite system	Journal of Theoretical and Applied Physics	2023	Scopus Indexed

Research Publications (July 2021-June 2022)

S. No.	**Authors**	**Title**	**Journal details**	**Year**	**Scopus indexed/ peer reviewed**
1	Aarya, S., **Kumar, P**.,	Gamma rays induced modification in	Advances in Polymer	2021	Scopus Indexed

	Bhatia, M., Kumar, S., Sharma, J. and **Siddhartha**	ultrahigh molecular weight polyethylene (UHMWPE)	Technology, 2021, 7013154		
2	**Bhatia M.**, Bhatia S. and **Siddhartha**	Smart materials for cardiovascular devices	Materials Today: Proceedings, 53, 307-309	2022	Scopus Indexed
3	Bargujar, S. ., Gambhir, G., Raigar, M. B., Hooda, S., Arya, D. K., & **Bhatia, M. .**	A new polysaccharide-based ion-exchange resin for industrial wastewater treatment	Polimery, 67(5), 212-219	2022	Scopus Indexed
4	Dhingra, V., Kumar, S., **Chowdhuri, A.**, and Garg, A.	Varying sonication conditions to tailor surface morphology of GO thin films for enhanced gas sensing performance	AIP Conference Proceedings, 2369(1), 020109	2021	Scopus Indexed
5	Lamichhane, S., Sharma, S., Tomar, M., and **Chowdhuri, A.**	Studies on Energy Storage properties of BFO/WO3 bilayer thin film capacitor	*Energy Storage*, e342	2022	Scopus Indexed
6	**Joshi, R.**	Double quantum ionization cross-sections for more general exponential cosine screened coulomb potential	Spectroscopy Letters, 55(6), 414-423	2022	Scopus Indexed
7	**Joshi, R.**	Micrometre double-quantum ionization of Rydberg hydrogen using linearly and circularly polarized light	The European Physical Journal D, 76(2), 37	2022	Scopus Indexed
8	**Joshi, R.**	High harmonic generation spectra for lithium embedded in plasma environment	Spectroscopy Letters, 55(3), 192-198	2022	Scopus Indexed
9	Dabas, S. **and Joshi, R.**	A numerical evaluation of Shannon entropy for modified Hulthen potential	The European Physical Journal D, 76(5), Article 95	2022	Scopus Indexed
10	Hariwal, R. V., Malik, H. K., **Negi, A.,** and Asokan, K.	Favourable tuning of optical absorbance, bandgap and surface roughness of ZnO thin films by C ion implantation at the critical angle	Applied Surface Science Advances, 7, 100189	2022	Scopus Indexed

11	Hariwal, R. V., Malik, H. K., **Negi, A**., and Asokan, K.	Unravelling impacts of C ion implantations at polar angles in the physical properties of ZnO nanostructured thin films	Materials Letters, 308, 131200	2022	Scopus Indexed
12	Singh, I., **Gupta, P. K.**, Uma, R. and Sharma, R. P.	Spatiotemporal nonlinear evolution of the laser pulse and turbulence generation in laser produced plasmas	Physics of Plasmas, 29(4), 042114	2022	Scopus Indexed
13	Khan Z. R., Alshammari A. S., Shkir Md., Bouzidi M., Mohamed M., Kumar M., **Sonker R. K.**	Effect of Ag doping on structural, morphological and optical properties of CdO nanostructured thin films	Physica B: Condensed Matter, 632, 413762	2022	Scopus Indexed
14	**Sonker R. K.**, Shastri R. and Johari R.	Superficial Synthesis of CdS Quantum Dots for an Efficient Perovskite-Sensitized Solar Cell	Energy and Fuels, 35, 8430-8435	2021	Scopus Indexed
15	**Chowdhuri, A.,** Saraswat, S. and Gupta, C. K.	Inclusion of environmental awareness as basic tenet of education in India for realization of sustainable practices	Research Journal of Educational Science, 9(1), 1-8	2021	Peer Reviewed
16	**Joshi, R.,** Kumar, P., Jha, A. K., and Kumar, T.	Pressure Ionization, Polarizability and Screening Constants in Confined Hydrogen Like Ions of Astrophysical Importance	Journal of Atomic, Molecular, Condensed Matter and Nano Physics, 8(2), 83-94	2021	Peer Reviewed

Research Publications (July 2020-June 2021)

S. No.	Authors	Title	Journal details	Year	Scopus indexed/ peer reviewed
1	Singh, Shruti; Singh,Pramod K; Sharma,Jitender Paul; Kakroo, Sunanda; **Rakesh Kumar Sonker**; Khan, Zishan H.	Encompassing environment synthesis, characterization and photovoltaic utilization of cadmium sulphide quantum dots	Materials Today: Proceedings, 34, 767-770	2021	Scopus Indexed
2	Kumar J., Singh H., **Raj V. B**, Nimal A.T., Gupta V., and Singh V.K.	Trace Detection of Nerve Agent Simulant in the Fuel Vapor Environment using Metal Oxide/Surface Acoustic Wave E-Nose	Defence Science Journal, 70(5), 520-528	2020	Scopus Indexed
3	Maqsood R. Waikar, Pooja M. Raste, **Rakesh Kumar Sonker**, Vinay Gupta, Monika Tomar, Mahendra D Shirsat, Rajendra G Sonkawade	Enhancement in NH_3 sensing performance of ZnO thin-film via gamma-irradiation	Journal of Alloys and Compounds, 830, 154641	2020	Scopus Indexed
4	Maqsood R Waikar, **Rakesh Kumar Sonker**, Sakshi Gupta, Shiv Kumar Chakarvarti, Rajendra G Sonkawade	Post-γ-irradiation effects on structural, optical and morphological properties of chemical vapour deposited MWCNTs	Materials Science in Semiconductor Processing, 110, 104975	2020	Scopus Indexed
5	**Rakesh Kumar Sonker**, Gaurav Hitkari, S.R. Sabhajeet, S. Sikarwar, Sandhya Singh	Green synthesis of TiO_2 nanosheet by chemical method for the removal of Rhodamin B from industrial waste	Materials Science and Engineering: B 258, 114577	2020	Scopus Indexed

Research Publications (July 2019-June 2020)

S. No.	Authors	Title	Journal details	Year	Scopus indexed/ peer reviewed
1	V. Dhingra, S. Kumar, R. Kumar, A. Garg, **A. Chowdhuri**	Room temperature SO_2 and H_2 gas sensing using hydrothermally grown GO–ZnO nanorod composite films	Materials Research Express, 7 065012	2020	Scopus Indexed
2	Kumar, Shani, Garg, A., &**Chowdhuri, A.**	Comparison of water purification properties of Graphene Oxide (GO) membranes with tuned interlayer spacings.	Materials Research Express, 6, 015604.	2019	Scopus Indexed
3	Kumar, Shani, Garg, A., &**Chowdhuri, A.**	Sonication effect on graphene oxide (GO) membranes for water purification applications.	Materials Research Express, 6 , 085620	2019	Scopus Indexed
4	Chetna, Kumar, S., Garg, A.**, Chowdhuri, A.,** Jain, A., & Kapoor, A.	A novel method of electrochemically growing ZnO nanorods on graphene oxide as substrate for gas sensing applications.	Materials Research Express, 6, 075039	2019	Scopus Indexed
5	Sukanta Deb, KerdarisKurbah, Harinder P Singh, Shashi M Kanbur, Chow-Choong Ngeow, Biman J Medhi, **Subhash Kumar**	Morphology of the Small Magellanic Cloud using multiwavelength photometry of classical Cepheids	Monthly Notices of Royal Astronomical Society(MNRAS) 489 (3), 3725-3738	2019	Scopus Indexed
6	**Rakesh Kumar Sonker**, B.C.	Synthesis of CdS nanoparticle by sol-gel	Materials Chemistry and	2020	Scopus Indexed

	Yadav, Vinay Gupta, Monika Tomar	method as low temperature NO_2 sensor	Physics**,** 239, 121975		
7	**Rakesh Kumar Sonker**, R. Shastri, B.C. Yadav	heoretical and experimental investigation on structural stability, electronic and vibrational properties of polvaniline (PANI)	Proceedings of the Jangjeon Mathematical Society, 22, 129-139	2019	Scopus Indexed
8	Rajan Goyal, Rekha Gupta, Ambika Negi, KandasamiAsokan, DinakarKanjilal,Subhalakshmi Lamba, and Subramanian Annapoorni	Modelling of Pinning-Depinning Reversal Mechanism in Ion-Irradiated Co/Al2O3 Thin Films"	Phys. Status Solidi A Volume 215, Issue 14 1800141	2018	Scopus Indexed
9	Rajesh V hariwal,Hitendra K Malik, Ambika Negi,andAshokenKandasami	Cotrolling room temperature ferromagnetism amd band gap in ZnO nano structured thin films by varying angle of implantation.	Royal Society of Chemistry,8 ,6278-6287	2018	Scopus Indexed
10	P Kumar, P Parmananda, **DK Verma**, T Singla, I de Nicolás, J Escalona	Entrainment of aperiodic and periodic oscillations in the Mercury Beating Heart system using external periodic forcing	Chaos: An Interdisciplinary Journal of Nonlinear Science 29 (5), 053112	2019	Scopus Indexed
11	T Singla, **DK Verma**, JF Tovar, A Figueroa, F Vázquez, FB Yousif,	Dynamics of a vertically vibrating mercury drop	AIP Advances 9 (4), 045204	2019	Scopus Indexed

Research Publications (July 2018-June 2019)

S. No.	Authors	Title	Journal details	Year	Scopus indexed/ peer reviewed
1	Chetna, S. Kumar, A. Garg, **A. Chowdhuri,** A. Jain and A. Kapoor	Structural and optical properties of electrochemically deposited ZnO nanorods by using graphene oxide and ITO as substrate material: a comparative study	Materials Research Express, 5 095024	2018	Scopus indexed
2	Sukanta Deb, Chow-Choong Ngeow, Shashi M Kanbur, Harinder P Singh, Daniel Wysocki, **Subhash Kumar**	Geometry of the Large Magellanic Cloud using multiwavelength photometry of classical Cepheids	Monthly Notices of the Royal Astronomical Society (MNRAS), 478(2), 2526–2540	2018	Scopus indexed
3	Kumar, R., **Subhash Kumar**& Tiwari, S.K.	A study of software reliability on big data open source software	International Journal of System Assurance Engineering and Management, 10, 242–250	2019	Scopus indexed
4	Ranjan Kumar, **Subhash Kumar,** Sanjay K. Tiwari	Adoption of Free and Open Source Software in India,	International Journal of Applied Engineering Research ISSN 0973-4562, 13(16), 12725-12731	2018	Peer reviewed UGC approved Journal No. 64529
5	**SP Yadav**, K Yadav, J Lahiri,	Ferroelectric liquid crystal	Liquid Crystals Reviews 6,	2019	Scopus indexed

	A Parmar	nanocomposites: recent development and future perspective	143-169		
6	**Rakesh Kumar Sonker,** B.C. Yadav, Vinay Gupta, Monika Tomar	Fabrication and characterization of ZnO-TiO_2-PANI (ZTP) micro/nanoballs for the detection of flammable and toxic gases	Journal of Hazardous Materials, 370 (2019) 126-137	2019	Scopus indexed
7	T. Vimal, K. Agrahari, **Rakesh Kumar Sonker**, R. Manohar	Investigation of thermodynamical, dielectric and electro-optical parameters of nematic liquid crystal doped with polyaniline and silver nanoparticles	Journal of Molecular Liquids, 290 (2019) 111241	2019	Scopus indexed
8	S. Sikarwar, B.C. Yadav, **Rakesh Kumar Sonker**, G.I. Dzhardimalieva, J.K. Rajput	Synthesis and characterization of highly porous hexagonal shaped CeO_2-Gd_2O_3-CoO nanocomposite and its opto-electronic humidity sensing	Applied Surface Science, 479, 326-333	2019	Scopus indexed
9	Ranjan Kumar, **Subhash Kumar,** Sanjay K. Tiwary	A Case Study on R: a powerful OSS and data analysis platform	International Journal of Applied Engineering Research, 14(9), 2260-2269	2019	Peer reviewed/UGC listed (No. 64529)
10	R.P. Sharma, Narender Kumar, R. Uma, Ram Kishor Singh and **P.K. Gupta**	Transient setting of relativistic ponderomotive non-linearity and filamentation of ultra-short laser pulses in collisionless plasmas	Laser and particle beams 37, 259	2019	Scopus indexed

Research Publications (July 2017-June 2018)

S. No.	Authors	Title	Journal details	Year	Scopus indexed/ peer reviewed
1	**Rakesh Kumar Sonker**, S. Sikarwar, S.R. Sabhajeet, Rahul, B.C. Yadav	Spherical growth of nanostructures ZnO based optical sensing and photovoltaic application	Optical Materials, 83, 342-347	2018	Scopus indexed

2	K.K. Halder, **Rakesh Kumar Sonker**, V.K. Sachdev, Monika Tomar, Vinay Gupta	Study of electrical, dielectric and EMI shielding behavior of copper metal, copper ferrite and PVDF composite	Integrated Ferroelectrics**,** 194 (2018) 78-85	2018	Scopus indexed
3	S.R. Sabhajeet, **Rakesh Kumar Sonker**, B.C. Yadav	Zn-Doped TiO_2 Nanoparticles Employed as Room Temperature Liquefied Petroleum Gas Sensor	Advanced Science, Engineering and Medicine, 10, 736-740	2018	Scopus indexed
4	S. Sikarwar, **Rakesh Kumar Sonker**, A. Shukla, B.C. Yadav	Synthesis and investigation of cubical shaped barium titanate and its application as opto-electronic humidity sensor	J. Mater. Sci: Mater Electron., 29, 12951-12958	2018	Scopus indexed
5	Rahul, P.K. Singh, M. Parvaz, S. Ahmed, **Rakesh Kumar Sonker**, B. Bhattacharya	Less toxic tin incorporated perovskite solar cell using polymer electrolyte processed in the air	Optik, 169, 166-171	2018	Scopus indexed
6	S. Sabhajeet, B. Yadav, **Rakesh Kumar Sonker**	Sol-gel formed spherical nanostructured titania based liquefied petroleum gas sensor	AIP Conference Proceedings, 1953, 030078	2018	Scopus indexed
7	**Rakesh Kumar Sonker**, Rahul, S.R. Sabhajeet	ZnO nanoneedle structure based dye-sensitized solar cell utilizing solid polymer electrolyte	Materials Letters, 223. 133-136	2018	Scopus indexed
8	**Rakesh Kumar Sonker,** S.R. Sabhajeet, B.C. Yadav, Rahul Johari	LPG detection using SnO_2, PANI-SnO_2 and Ag-SnO_2 composite film fabricated by Chemical route	Int. J. Electroactive Mater. 5, 6-12	2017	Peer reviewed
9	**Rakesh Kumar Sonker,** S.R. Sabhajeet, B. C. Yadav	Preparation of PANI doped TiO_2 nanocomposite thin film and its relevance as room temperature liquefied petroleum gas sensor	J. Mater. Sci: Mater Electron., 28, 14471–14475	2017	Scopus indexed
10	**Rakesh Kumar Sonker,** B. C. Yadav	Development of Fe_2O_3-PANI nanocomposite thin film based sensor for NO_2 detection	J. Taiwan Ins. of Chemical Eng., 77, 276-281	2017	Scopus indexed

11	S. Kumar, **P. K. Gupta**, R. Uma and R. P. Sharma	Enhancement in self-compression due to co-propagating laser pulse in plasma	Optics Communications 37, 427	2018	Scopus Indexed
12	**P. K. Gupta**, R. K. Singh and R. P. Sharma	Dynamics of focused femtosecond Laser Pulse during photodisruption of crystalline lens	Physics of Plasmas 25, 043121	2018	Scopus Indexed
13	S. Kumar, **P. K. Gupta**, R. K. Singh, S. Sharma, R. Uma and R. P. Sharma	Self-compression of two co-propagating laser pulse having relativistic nonlinearity in plasma	Laser and particle beams 35, 722	2017	Scopus Indexed
14	R. V. Hariwal, H. K. Malik, **A. Negi** and A. Kandasami	Controlling room temperature ferromagnetism and band gap in ZnO nanostructured thin films by varying angle of implantation	R. S. C. Advances, 2046-69	2018	Scopus Indexed
15	P Kumar, **DK Verma**, P Parmananda	Partially synchronized states in an ensemble of chemo-mechanical oscillators	Physics Letters A 381 (29), 2337-2343	2017	Scopus Indexed

Research Publications (July 2016-June 2017)

S. No.	Authors	Title	Journal details	Year	Scopus indexed/ peer reviewed
1	Gupta C K and **Chowdhuri A**	Diminishing public health due to Particulate Matter in the ambient.	International Journal of Engineering Research and Allied Sciences (IJERAS). Vol. 1, Issue 9, pp 1 – 5.	2016	Peer Reviewed

2	Gupta C K, Singh S, Singh A, Yagnik P, Das B K and **Chowdhuri A**	A particulate Matter Based Real-Time Analysis of Odd-Even Car Experiment in Delhi.	DU Journal of Undergraduate Research and Innovation. Volume 2, Issue 1, pp 31- 39	2016	Peer Reviewed
3	**Chowdhuri A**, Das B K, Singh S and Gupta C K	Assuaging Human Health Concerns Through Analysis of Physicochemical Parameters of Potable Water Samples in Delhi.	Journal of Innovation for Inclusive Development (JIID). 1 (1) 20 – 25	2016	Peer Reviewed
4	**Chowdhuri A** and Gupta C K	Assessment of Particulate Matter (PM) concentrations at a typical construction site in Bangalore, India	International Research Journal of Environment Sciences. Vol 6(2):1-5.	2017	Peer Reviewed
5	Ranjan Kumar, **Subhash Kumar**, Sanjay K. Tiwari	Free and open source software: A key enabler for digital India,	South Asia Journal of Multidisciplinary Studies, 3(5), 11-15 (**2017**):	2017	Peer Reviewed UGC approved Journal No. 49956-911
6	**Raj V B**, Singh H, Nimal A T, Sharma MU, Tomar M and Gupta V	Distinct detection of liquor ammonia by ZnO/SAW sensor: study of complete sensing mechanism.	Sensors and Actuators B. 238: 83-90	2017	Scopus indexed
7	Singh H, Parmar Y, **Raj V B**, Pandya H M, Kumar J, Mishra M, Nimal A T and Sharma M U	Sensitivity Enhancement Studies of SAW vapor sensor by oscillator tuning using Varactor diode	IEEE Sensors. 17 (5): 1391-1398	2017	Scopus indexed
8	**Rohtash Singh,** V. K. Tripathi, R. K. Vatsa, and D. Das	Nanosecond Laser- Cluster Interactions at 10^{9}-10^{12} W/cm^{2}	Phys. Plasmas 24, 082111	2017	Scopus indexed
9	**Rohtash Singh** and V. K. Tripathi,	Laser Excitation of Terahertz Surface Plasma Wave over a Hollow Capillary Plasma	Laser Part. Beams 34, 109-114	2016	Scopus indexed

10	M. Singh, B.C. Yadav, A. Ranjan, **Rakesh Kumar Sonker**, M. Kaur	Detection of liquefied petroleum gas below lowest explosion limit (LEL) using nanostructured hexagonal strontium ferrite thin film	Sens. Act. B: Chemi. 249, 96-104	2017	Scopus indexed
11	B.C. Yadav, K. S. Chauhan, S. Singh, **Rakesh Kumar Sonker**, S. Sikarwar and R. Kumar	Growth and characterization of sol-gel processed rectangular shaped nanostructured ferric oxide thin film followed by humidity and gas sensing	J. Mater. Sci: Mater Electron., 28 , 5270-5280	2017	Scopus indexed
12	Chandkiram Gautam, Chandra Shaker Tiwary, Leonardo D. Machado, Sujin Jose, SehmusOzden, Santosh kumarBiradar, Douglas S. Galvao, **Rakesh Kumar Sonker**, B. C. Yadav, Robert Vajtai, P.M. Ajayan	Synthesis and porous h-BN 3D architectures for effective humidity and gas sensors	RSC Advances, 6, 87888-87896	2016	Scopus indexed
13	**Rakesh Kumar Sonker,** B. C. Yadav, G. I. Dzhardimalieva	Preparation and properties of nanostructured PANI thin film and its application as low temperature NO_2 sensor	J. Inorg. Organomet. Polym., 26, 1428-1433	2016	Scopus indexed
14	**Rakesh Kumar Sonker**, B.C. Yadav	Synthesis of ZnO/CNTS nanocomposite thin film and its sensing	Int. Jour. on Applied Bioengineering, 10, 7-11	2016	Peer Reviewed
15	**Rakesh Kumar Sonker**, S.R. Sabhajeet, B.C. Yadav	TiO_2-PANI nanocomposite thin film prepared by spin coating technique working as room temperature CO_2 gas sensing	J. Mater. Sci: Mater Electron., 27, 11726-11732	2016	Scopus indexed

16	Utkarsh Kumar, Samiksha Sikarwar, **Rakesh Kumar Sonker**, B.C. Yadav	Carbon Nanotube: Synthesis and Application in Solar Cell	J.Inorg.Organomet.Polym.,26, 1231-1242	2016	Scopus indexed
17	S. Kumar, **P. K. Gupta**, R. K. Singh, S. Sharma, R. Uma and R. P. Sharma	Pulse compression and self focusing of Gaussian laser pulses in plasma having relativistic ponderomotive nonlinearity	Laser and particle beams 35, 429	2017	Scopus indexed
18	**P. K. Gupta**, S. Sharma, N. Gaur, R. K. Singh, R. P. Sharma and R. Uma	laser pulse compression and intensity enhancement	Physics of Plasmas 23, 093122	2016	Scopus indexed

Research Publications (before June 2016)

S. No.	Authors	Title	Journal details	Year	Scopus indexed/ peer reviewed
1	**M. Malik,** F. Ahmed and L. S. Kothari	Study of space-dependent fast-neutron spectra and tritium breeding ratio in different assemblies of 7Li, 6Li and Neutral Li	Annl. Nucl. Energy, 14, 643-651	1987	Scopus indexed
2	**M. Malik,** F. Ahmed and L. S. Kothari	A pulsed-neutron study of 14 MeVneutrons in 7Li, 6Li and Neutral Li assemblies	Annl. Nucl. Energy, 16, 119-117	1987	Scopus indexed
3	**S. Rani and** G. K. Chadha	Microhardness and X-Ray studies of single crystals of Bi doped with group IV elements, Pb and Ge	Indian Journal of Engineering and Materials Sciences, 10, 59-64	2003	Scopus indexed
4	**S. Rani and** G. K. Chadha	Microhardness studies on Bi-In single crystal	Indian Journal of Engineering and Materials	2002	Scopus indexed

			Sciences, 9, 359-364		
5	**S. Rani and** G. K. Chadha	Semimetal-semiconductor transition in Bi-In system	Indian Journal of Pure and Applied Physics, 40. 407-416	2002	Scopus indexed
6	**M.Verma**and V. S .Tomar	Effects of Fe and Ni substitution in Y1Ba2Cu4O8 at copper sites	Solid State Communications, 94, 925-929	1995	Scopus indexed
7	**M.Verma**and V. S .Tomar	Comparison of Co and Ni doping at copper sites in Y-124 high temperature superconductor	Physics C, 272, 335-341	1996	Scopus indexed
8	A. Goyal and **M. Dahiya**	Chiral symmetry in the linear sigma model in a magnetic environment	Physical Review D, 62, 025022	2000	Scopus indexed
9	A. Goyal and **M. Dahiya**	Nambu-Jona-Lasinio model in four dimensions at finite temperatures; chemical potential and curvature	J. Phys. G: Nucl. Part. Phys. 27 1827	2001	Scopus indexed
10	A. Goyal and **M. Dahiya** and D Chandra	Symmetry structure and phase transitions	Pramana J. Phys, 60, 887-900	2003	Scopus indexed
11	A.Goyal and **M. Dahiya**	Chiral symmetry model in Linear sigma model	Proceeding-Pramana J. Phys, 55, 597	2000	Scopus indexed
12	Nikhil Kumar, Saptarshi Chakrabarty, Shobha Badola, Sunita Narang, Charu K. Gupta and **Arijit Chowdhuri**	"Low cost 'Smart' switch for designing Electronic Nose (E-Nose) for gas sensing applications	Journal of Advanced Research in Electrical and Electronic Engineering (AREEE) 1 (1), 35 – 37	2014	Peer Reviewed
13	Prayas Tiwari, Ashish Pokhriyal, Pankaj Rawat, Charu K. Gupta, Sunita Narang and **Arijit**	Using mobile phones with android OS for measuring hazardous gas concentrations detected using Electronic Nose (E-Nose)	Journal of Advanced Research in Electrical and Electronic Engineering (AREEE) 1 (1), 25 – 27	2014	Peer Reviewed

	Chowdhuri				
14	D. Haridas, **A. Chowdhuri,** K Sreenivas and Vinay Gupta	Enhanced room temperature response of SnO2 thin film sensor loaded with Pt catalyst clusters under UV radiation for LPG	Sensors and Actuators B 153 152–157	2011	Scopus indexed
15	D. Haridas, **A. Chowdhuri,** K Sreenivas and V. Gupta	Effect of thickness of platinum catalyst clusters on response of SnO2 thin film sensor for LPG	Sensors and Actuators B 153, 89-95	2011	Scopus indexed
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