CURRICULUM VITAE

NAME: Dr. Ramesh Chandra
Professor, (HAG Scale)
Institute Instrumentation Centre &
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Indian Institute of Technology Roorkee –247 667 (India)
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Website:https://iitr.ac.in/Centres/Institute%20Instrumentation%20Centre/People/Faculty/ProfilePage.html, Profile URL: https://iitr.irins.org/profile/60638

PAY SCALE: Level-15 (₹ 1,82,200 – 2,24,100), **BASIC PAY**: ₹ 2,24,100/

DATE OF BIRTH: April 24, 1964

EDUCATIONAL QUALIFICATIONS:

Ph. D (Physics)**:** I. I. T. Delhi in1993
M. Sc (Physics)**:** A.M.U. Aligarh in 1987

TEACHING & RESEARCH EXPERIENCE: 31 Years

1. Professor, ***Senior Scale,*** at IITR Since January 2021
2. Professor at I.I.T. Roorkee since April (2014 – 2020)
3. Associate Professor at I.I.T. Roorkee (2007-2014)
4. Assistant Professor at I.I.T. Roorkee (2004-07)
5. Reader at C.C.S. University, Meerut (2002-04)
6. Lecturer at Guru Nanak Dev University, Amritsar (1994 – 02)
7. Research Associate at N.P.L., New Delhi (1993-94)

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https://iitr.irins.org/faculty/index/Institute+Instrumentation+Centre
Profile URL: https://iitr.irins.org/profile/60638

Google Scholar Citations:
https://scholar.google.co.in/citations?hl=en&user=VOwGOJQAAAAJ
https://youtube.com/clip/UgkxD3rIFhB-w7Me2FzdcbZ9szVb82dH8Bxn

ADMINISTRATIVE EXPERIENCE:

1.Head, IIC for 10 Years (2012 - 2016) & January 2020 - 2025
2.Head, DST SAIF (EPMA) Facility (Since 2014-2022)
3.Staff advisor for hobbies club for 3 years (2009-12)
4.**Staff Advisor of the Sports Council** of IIT Roorkee for 6 Years (2010-16)
5.Chairman Safety Committee of the Centre

AWARDS AND RECOGNITIONS:

1. **Dr**. **A.N. Chatterjee** memorial award on fabricating **High-Tc Squids** in 1990 at National Physical Laboratory New Delhi.
2. Received **Visiting Scientist** position at Tata Institute of Fundamental Research (TIFR), Mumbai during 1997 to 1999.
3. Received **Visiting Associate** position at Inter University Accelerator Centre (***IUAC), New Delhi***, for 3 years (2002-04)
4. Received **Commonwealth fellowship** to work at University **of Cambridge, United Kingdom (UK)** during (2002 – 03).
5. **INSA Fellowship** to visit the **University of Cambridge, UK** (2009 – 10).
6. **INSA Fellowship** to visit Silesian University of Technology, Gliwice, **Poland** (June 07-28, 2019).
7. **Outstanding Contribution** to ***develop corrosion resistant coatings*** for Defense Applications.
8. Senate Member of IIT Bhilai (2024-26)

Prof Ramesh Chandra, Institute Instrumentation Centre, Indian Institute of Technology Roorkee (IIT Roorkee) was felicitated at the recent ***DRDO-Academia Conclave organized by Defence Research and Development Organizations (DRDO) on May 25 – 26, 2023 at DRDO Bhawan New Delhi.*** During the event, ***Hon'ble Raksha Mantri Shri Rajnath Singh*** felicitated Prof. Ramesh Chandra for his outstanding contributions towards developing technology for DRDO. Prof. Ramesh Chandra and his group designed and developed hydrophobic, optically transparent, hard and corrosion resistant coatings to improve the service life of structural components used in the Naval submarines which will greatly help the Indian Naval Forces.

SPONSORED PROJECTS: (COMPLETED) As PI

S.N	Duratio	Agency	Title of the Project	Grant (Lacs)
1.	**2005-07**	**DST**	Study of Optical & Mech prop. of Nanomaterials	**Rs. 24.00**
2.	**2006-09**	**CSIR**	Optical Characterization of Nanomaterials for Device Application	**Rs. 14.00**
3.	**2006-08**	**DRDO**	Deposition of Scratch Resistant Nano structured Optical Coating by Sputtering	**Rs. 10.00**
4.	**2006-09**	**DST**	Super hard Nanocomposit coatings …	**Rs. 95.00**
5.	**2008-09**	**DAE**	Corrosion Resistant… Structural Materials	**Rs. 17.00**
6.	**2008-10**	**DRDO**	Fe-SiC Nanostructured films by PVD…	**Rs. 10.00**
7*	**2008-12**	**DIT**	MEMS & Q.dot modified PV Cell..	**Rs. 484.00**
8.	**2009-11**	**DRDO**	Optically transparent hard coatings …..	**Rs. 28.75**
9.	**2009-12**	**CSIR**	Nanostructured hydrophobic Coatings…	**Rs. 16.10**
10.	**2010-13**	**CPRI**	Development of Silt Erosion Resistant…	**Rs. 163.13**
11.	**2012-14**	**DRDO**	Synthesis and Characterization of Metal oxide Nanoparticles.....	**Rs. 12.46**
12.	**2014-16**	**DRDO**	Development of SiC thin films for electronic applications	**Rs. 20.70**
13.	**2014-17**	**DRDO**	Absorption studies of laser light in nanoparticles for laser initiation of high explosives	**Rs. 38.02**
14.	**2016-17**	**DRDO**	Saline water protective antireflective coatings on Si	**Rs. 9.715**
15.	**2017-20**	**CSIR**	Studies on Magnetic Coupling ……..induced by H2 Charging	**Rs. 20.32**
16.	**2019-20**	**DRDO**	Fabrication & Characterization of MoS2 Films by PVD	**Rs. 10.80**
17.	**2018-21**	**DRDO**	Development of Corrosion resistant hydrophobic coatings for ….. under saline water applications	**Rs. 79.24**
18.	**2019-23**	**DST**	Fabrication of High Energy Density Thin film based on chip Supercapacitor Devices Using Sputtering Technique.	**Rs. 95.40**
Total Grant				**Rs. 1148.61(lacs)**

(IN PROGRESS)

S.N	Date	Agency	Title of the Project	Grant (Lacs)
1.	**2024-27**	DRDO	Development of Optically transparent, mechanically durable, and hydrophobic coatings for underwater applications	**Rs. 250.00**
2.	**2023-26**	DRDO (Co-PI)	Fabrication of 2D-transition metal dichalcogenides based devices for optoelectronic applications	**Rs. 127.00***
Total Grant				**Rs. 377.00 lacs**

CONSULTANCY PROJECTS:

2009	NTPC Greater NOIDA Hydrophobic coatings on HV Insulators	**Rs. 6.20 lacs**
2013	ASAHI INDIA GLASS LTD Roorkee Golden Color Coatings	**Rs. 2.50 lacs**
2014	Technical diligence of Attero recycling Pvt. Ltd Roorkee	**Rs. 2.00 lacs**
2014	Technical study of high speed ffs rotary machine with single track	**Rs. 2.00 lacs**
2015	Characterization of catalyst samples	**Rs. 0.88 lacs**
2015	Pectographic analysis of silt & water of Shana HEP, PSPCL	**Rs. 1.80 lacs**
2015	Development of new multi-layer coating ….	**Rs. 1.25 lacs**
2016	Optical characterization of Poly film….	**Rs. 4.00 lacs**
2017	Synthesis of hydrophobic coatings on glass supplied by AIS Roorkee	**Rs. 3.00 lacs**
2018	Coatings & its defects analysis on Glass supplied by AIS Roorkee	**Rs. 3.00 lacs**
2019	Analysis of Glass defects supplied by AIS	**Rs. 4.50 lacs**
2019	Structural & elemental analysis of Alumina Ceramic Liner samples	**Rs. 3.00 lacs**
2020	Analysis of Glass defects supplied by AIS	**Rs. 3.00 lacs**
2021	Structural defects Analysis of Glass samples supplied by AIS	**Rs. 3.00 lacs**
2021	Characterization of multilayer coatings on Glass by AIS	**Rs. 4.00 lacs**
2022	Structural defects Analysis of Glass samples supplied by AIS	**Rs. 6.00 lacs**
2022	Characterization …Synthesized from Recycled E-Waist, Exigo NOIDA	**Rs. 3.00 lacs**
2022	Characterization of multilayer coatings on Glass by AIS	**Rs. 6.00 lacs**
2023	Structural defects Analysis of Glass samples supplied by AIS	**Rs. 6.00 lacs**
2024	Structural & elemental analysis of Alumina Ceramic Liner samples.	**Rs. 3.00 lacs**

RESEARCH GUIDANCE:

Ph.D. **Awarded: 3**6 **Ongoing: 10 PhDs, 18 M. Tech/Phil, and 2 Post-Doctoral Fellows**

Research Publications in Refereed Journals: **290**, Conferences: **175**

Attended workshop/Training Course on "POLICY FOR SCIENCE AND SCIENCE FOR POLICIES', December 15-19, 2014, NIAS Bangalore for Senior Executives.

Regular Reviewer of the following Publishers.

Elsevier, American Institute of Physics, Springer, ACS etc

Applied Physics Letters, Applied Surface Science, International Journal of Hydrogen Energy, Thin Solid Films, Sensors & Actuators: B. Chemical, Materials and Design, Journal of Magnetism and Magnetic Materials, Surface & Coatings Technology, Journal of applied physics, Vacuum, Journal of Alloys & Compounds, Materials Science & Engineering B, Solid State Communication, Applied Optics, I Journal of Hydrogen Energy, Optics and Laser Technology, Materials Chemistry and Physics, OSA The Optical Society

Organized Short-Term course (QIP): Advances in Characterization techniques on functional Nanomaterials: 2010, 2012, 2014, 2015, 2017, 2019.
Conducted a workshop December 12-16, 2011, for NTS Awardees sponsored by NCERT.
Organized Several Training programs on Analytical facilities for Pre-Ph.D students

BROAD AREAS OF RESEARCH:

1. *Nanostructures for energy conversion and catalysis*
2. *Supercapacitors for energy storage*
3. *Development of Gas Sensors (H_2, CO, Cl_2, NH_3 etc.)*
4. *Study of Hydrogen effects on magnetic nanostructured coatings*
5. *We have developed expertise in fabricating high-quality films by sputtering of SiC for high-temperature electronics and other harsh environment applications.*
6. *Development of Wear & Corrosion Resistant Coatings on Structural Materials*
7. *Synthesis & and characterization of ordered magnetic nanostructures*

Member Technical Expert Committee of outside organisations

1. Instruments Research & Development Establishment (IRDE), DRDO, Dehradun
2. Solid State Physics Lab. (SSPL), DRDO, New Delhi
3. Terminal Ballistic Research Lab. (TBRL), DRDO, Chandigarh
4. Defence Research Development Establishment (DRDE) Gwalior
5. Defence Materials and Stores Research and Development Establishment, Kanpur
6. Indian Oil Corporation Limited (IOCL), Faridabad
7. Dr. B R Ambedkar National Institute of Technology (NIT), Jalandhar
8. Indian Institute of Technology (BHU) Varanasi
9. Motilal Nehru National Institute of Technology Allahabad
10. Inter University Accelerator Centre (IUAC), New Delhi
11. Indian Institute of Petroleum (IIP) CSIR, Dehradun
12. Indian Institute of Technology Bhilai, Raipur

Established the Research Laboratory at IIT Roorkee to Fabricate Thin Film based Nanostructures for various applications

Since joining IIT Roorkee, I have also developed a homemade ***Gas sensing setup*** to characterise different Gas Sensors (H_2, NH_3, Cl_2, H_2S & CO_2 etc.). ***Electrochemical workstation*** for electrochemical energy storage and hydrogen-oxygen evolution studies and analysis. ***Contact angle measurement*** for measuring the contact angle and surface energy of thin films with the help of EASYDROP (Kruss). ***Impedance analyser*** to measure dielectric, capacitance and admittance as a function of frequency and voltage. These facilities have been created with the help of sponsored research grants received from various funding agencies such as the Department of Science & Technology (DST), Council of Scientific and Industrial Research (CSIR), Défense Research and Development Organization (DRDO), Department of Atomic Energy (DAE) and Central Power Research Institute (CPRI). In addition to working on the sponsored research projects, I have been working with the local industries, namely Attero Recycling Pvt Ltd, Roorkee, Asahi India Glass Ltd, Roorkee, BMW Steels Ltd., Dehradun, to help them in their respective process development. I have completed **16 Consultancy Projects** related to various industries.

Organized several National Workshops & Training programs for the one-week duration at IIT Roorkee related to synthesis and characterization of Nanomaterials.

Filed a Patent: GROWTH OF CUPROUS OXIDE NANOWIRES WITH TOP LAYER OF NOBLE METAL
Inventors: VIPIN CHAWLA, SUNITA MISHRA, ARVIND KUMAR, RAMESH CHANDRA, NEHA SARDANA
PATENT APPLICATION NO. 201811032673
FILING DATE. 31/08/2018

Professional referees with whom I have interacted in the past:

(1) Prof. Prem Vrat
Chairman, Board of Governors, IIT (ISM) Dhanbad
Former Director, IIT Roorkee
Tel.: ***Mb: 9810568680***, Email: premvrat@gmail.com

(2) Prof. Rajiv Prakash, Director
Indian Institute of Technology Bhilai, Raipur - 492015
E-mail: director@iitbhilai.ac.in, rprakash.mst@itbhu.ac.in,
Tel: +91-771-2973602, Mb: 99350 33011

(3) *Prof. K K Pant, Director*
Indian Institute of Technology Roorkee, Roorkee-247667 (Uttarakhand)
Email: director@iitr.ac.in, Tel: 01332-272742, 285500(O), Mob : 9837070794,

(4) Prof. A K Tyagi, Vice Chancellor
Mahatma Gandhi Kashi VidyapithVaranasi, Uttar Pradesh - 221002
Email: vcmgkvp@gmail.com, akt@mgkvp.ac.in, Mb: 82880 12005, 94630 00886

(Ramesh Chandra)

PAPERS PUBLISHED IN REFEREED JOURNALS:

2025

1. Advance biomass-derived cellulose composite electrodes for supercapacitors: a review
Nitesh Choudhary, Akshay Tomar, Shakshi Bhardwaj, Jakub Cwiertnia, Dominik Just, Dawid Janas, Ramesh Chandra and Pradip K. Maji
J. Mater. Chem. A, *13* (2025) 4012

2. Investigation of electrochemical properties of Pt-WO_3 nanocomposite thin films for supercapacitor applications"
Reenu Rani, A Kumar, M Sharma, Brij Mohan, R Kumar, Ramesh Chandra, V.K. Malik,
J Phys. Chem. Solids, *197*, (2025),112428.

3. Synergistically integrated WS_2-$MoSe_2$nanowires co-sputtered over porous silicon towards ppb level NO_2 detection
Sonika Kodan, Sheetal Issar, Akshay Tomar, Vivek Malik, and Ramesh Chandra
Sensors & Actuators: B. Chemical 441 (2025) 138021

4. Correlative morphology effects on surface characteristics of hydrophilic h-MoS_2 thin films
Prachi Gurawal, Somdatta, G Malik, R Adalati, M Madaan, V.K. Malik, Ramesh Chandra
Mater. Chem. Phys. 341 (2025) 130870

5. MoS_2-$MoSe_2$ Nanoflakes-based n-n Heterojunction towards Highly Sensitive and Selective Room Temperature NO_2 Gas Sensor
Sonika Kodan, Sheetal Issar, Akshay Tomar, Vivek Malik, and Ramesh Chandra
Appl. Phys. Lett. *126*, (2025) 241602 https://doi.org/10.1063/5.0274966

6. Li-salt assisted high performance bimetallic titanium vanadium nitride-based symmetric supercapacitor device for energy storage application
Sheetal Issar, Sonika Kodan, A Bansal, A Tomar, Nitesh Choudhary, Ramesh Chandra
Electrochimica Acta. 535, (2025) 146636

7. Unlocking Versatility of V_2O_5 Films for Next-Generation Batteries: A Binder-Free Approach
Ananya Bansal; Pramod Kumar; Kushagra Bharadwaj; Vipin Chawla; Ramesh Chandra
J. Power Sources *653* (2025) 237748, https://doi.org/10.1016/j.jpowsour.2025.237748

8. La2NiMnO6-modified flexible PVDF membranes for wastewater purification via coupled piezo contact electrocatalysis
A Gangal, Samta Manori, S Rana, Aakanksha Jain, Ramesh Chandra, R K Shukla
J. Water Process Engg, 76 (2025) 108202. (I.F. 6.7) DOI:
https://doi.org/10.1016/j.jwpe.2025.108202

9. Radical-Mediated Photocatalytic Dye Degradation Antimi Properties of La_2NiMnO_6 Nanoparticles
Samta Manori, A Gangal, Aakanksha Jain Kaushik, Vishwajeet Bachhar, Vibha Joshi, M Duseja, Ramesh Chandra, Ravi Kumar Shukla
New J Chem., 49 (2025) 807 (I.F. 2.5). DOI: https://doi.org/10.1039/D4NJ04437A

10. Electrochemical Analysis of Flexible Symme Supercapacitors Using WSe2@Graphite Thin Film Electrodes under Different pH Conditions
Akshay Tomar, N Choudhary, R Jain, D Chaudhary, G Malik, Sheetal Issar, Ramesh Chandra
Nanoscale **17** (2025), 16457-16475 (I.F. 5.1) DOI: https://doi.org/10.1039/D5NR01328C

11. Beyond Heat Harvesting: Thermoelectric Materials and Hybrid Devices for Smart Sensing and Sustainable Technologies
Neeraj Dhariwal, Preety Yadav, Akanksha, Sakshi Bisht, **Ramesh Chandra**, O. P. Thakur, Paul V. Braun, Sung Bum Kang, Amit Sanger, and Vinod Kuma
Adv. Energy Mater. (2025), 2502895. doi: https://doi.org/10.1002/aenm.202502895

Tailored 2D Bi_2WO_6-rGO hybrid composites for advanced flexible and wearable supercapacitor devices
Neeraj Dhariwal, Priti Yadav, Dinesh, Somdatta, Amit Sanger, Ramesh Chandra, Vinod Kumar

Inorganic Chemistry Communications
Article number
115398
Our reference
INOCHE_115398
PII
S1387-7003(25)01515-1
DOI
10.1016/j.inoche.2025.115398

2024

1. Recent Advancements in Nanocellulose-based Supercapaci Energy Storage Devices: A Review
Nitesh Choudhary, Shiva Singh, Shakshi Bhardwaj, Sayan Gupta,Upendranath Nandi, Ramesh Chandra, Pradip K. Maji
Carbohydrate Poly Technol Appls , 7, (2024) 100416

2. Li Salt Assisted Highly Flexible Carbonaceous Ni_3N@polyimide Electrode for an Efficient Asymmetric Supercapacitor .
Ravikant Adalati, Siddharth Sharma, Meenakshi Sharma, Pramod Kumar, Ananya Bansal, Ashwani Kumar, Ramesh Chandra
Nano Letters, *24*, (2024) 362-369.

3. Investigating the Electrochemical Performance of Maleic Anhydride-Tuned Cellulose Nanocrystals and Single-Wall Carbon Nanosheet Hybrids for Supercapacitor Applications
Nitesh Choudhary, Shiva Singh, Gaurav Malik, Shakshi Bhardwaj, Siddharth Sharma, Akshay Tomar, Sheetal Issar, Ramesh Chandra, Pradip Kumar Maji
ACS Nanoletters (2024)

4. PdNPs/NiNWs as a welding tool for the synthesis of polyfluorene derivatives by Suzuki polycondensation under microwave radiation
Tomasz Wasiak, Dominik Just, Andrzej Dzienia, Dariusz Łukowiec, Stanisław Wacławek, Anna Mielańczyk, Sonika Kodan, Ananya Bansal, **Ramesh Chandra** & Dawid Janas
Scientific Reports *14* (2024**)** 2336

5. Vertically Aligned $MoSe_2$-WS_2 Nanoworms Heterojunction towards Room Temperature NO_2 Gas
Sonika Kodan, Ashwani Kumar, Amit Sanger, Aisha Arora, Vivek Kumar malik, **Ramesh Chandra**
***Sensors & Actuators: B. Chemical 407** (2024) 135481*

6. Toward Enhancing the Thermoelectric Performance of PLD-Grown Single and Bilayer Bi_2Te_3 and Sb_2Te_3 Thin Films"
Akash Raj; Ashwani Kumar; Rinku Kumar; Ravi Kumar; **Ramesh Chandra**
J. Mater Sci: Mater Electrn *35* (2024) 468

7. Highly responsive and selective NO gas sensing based on room temperature sputtered nanocrystalline WO_3/Si thin films
Somdatta Singh, Prachi Gurawal, Ravikant Adalati, Davinder Kaur, **Ramesh Chandra**
Micro and Nanostructures 188 (2024) 207794

8. Sputter Deposited Crystalline MoO_2 Films as a High-Capacity and Stable Electrode Material for Supercapacitors: Mechanistic/Electrochemical Insights"

Pramod Kumar, Ananya Bansal, Ravikant Adalati, Sheetal Issar, **Ramesh Chandra**
Electrochimica Acta *489* (2024) 144295

9. High-performance self-biased Cu/SiC/Si photo-sensor swift response for NIR/Vis photodetection
Alisha Arora, Parvesh Chander, S. Mourya, Somdatta, **Ramesh Chandra**, Vivek Malik
Appl. Surf. Sci. *665* (2024) 160292

10. Enhanced Supercapacitive Performance in Catalyst-Free Binary Composite SnO_2–RuO_2 Nanostructured Thin Films for Symmetric Supercapacitor Device
Reenu Rani, M Sharma, Brij Mohan, Ashwani Kumar, Ramesh Chandra, Vivek K Malik
EnergyTechnol*.*12 (2024) 2301511

11. Emerging nanomaterials for hydrogen sensing: Mechanisms and prospects
Mitva Choudharya, A. Shrivastav, Anil K. Sinha, Amit K. Chawla, D.K. Avasthi, K. Saravanan, Satheesh Krishnamurthy, **Ramesh Chandra**, Shikha Wadhwa
I.J. Hydrogen Energy *77* (2024) 557–574

12. Self-assembled lyotropic liquid crystals from natural surfactant: A study on their structural, rheological and antimicrobial behaviour
Yogita, Prayas Singh, Samta Manori, Farheen, K K Raina, Ramesh Chandra, Ravi K. Shukla
Colloids and Surfaces A: Physicochemi. Engg. Aspects ***696*** (2024) 134371

13. High-voltage (> 3 V) energy storage device based on sputter-grown TiCrN microelectrodes towards miniaturized applications.
Sheetal Issar, Deepika Jhajhria, Ravkant Adalati, Pramod Kumar, Sonika Kodan, Ramesh Chandra
J Energy Storage *95* (2024) 112569

14. Palladium enhanced electrochemical supercapacitive performance of Chromium oxide thin films synthesized by sputtering process"
Reenu Rani**,** Meenakshi Sharma, Siddharth Sharma, Ramesh Chandra, V. K. Malik
Thin Solid Films *799* (2024) 140379

15. Investigating the Electrical Transport and Photoresponse Properties of WSe_2 and a Thermally Engineered $SrTiO_3$-Based Heterojunction
Alisha Arora, Parvesh Chander, A Tomar, Sonika Kodan, **Ramesh Chandra**, Vivek Malik
ACS Appl. Electron. Mater. ***6*** (2024) 3186−3196

16. Synthesis, characterization of rare earth ion-doped YVO_4 thin-film phosphors grown by PLD
Suruchi Sharma, Atul Khanna, Rinku Kumar, and **Ramesh Chandra**
J Mater Sci: Mater Electron *35* (2024) 1219

17. Temperature-dependent wetting physical characteristics of sputtered grown WO_3 thin films
Somdatta Singh, Prachi Gurawal, Gaurav Malik, Davinder Kaur, and Ramesh Chandra,
Bulletin Mater. **Sci**, **47,** (2024) 137

18. Design of high-performance supercapacitor WSe2 nanoflakes for energy storage applications
Akshay Tomar, Sheetal Issar, Nitesh Choudhary, Sonika Kodan, Ramesh Chandra
Energy & Fuels 38 (2024) 13425–13435

19. Highly efficient NO_2 gas sensor based on sputter-grown nanocrystalline MoO_3 thin films,
Somdatta Singh, Ravikant Adalati, P Gurawal, Gaurav Malik, Davinder Kaur, and Ramesh Chandra
Materials Letters, **369,** (2024) 136762

20. Binder Free Approach for Fabrication of Lithium Cobalt Oxide for Thin Film based Lithium-Ion µ-batteries
Ananya Bansal; Pramod Kumar; Sheetal Issar; Vipin Chawla; Ramesh Chandra
Thin Solid Films 805 (2024) 140506

21. Swift heavy ions induced transformations in the structural and magnetic properties of Co/Pt multilayer thin films for magnetic storage
Rajan Walia, F Singh, Ashwani Kumar, V K Singh, P.C. Agarwal, Vipin Chawla, Ramesh Chandra

Inorganic Chem. Commun. ***170*** (2024) 113376, https://doi.org/10.1016/j.inoche.2024.113376

22. WSe_2 Nanoflakes on Graphite Sheets for Flexible Symmetric Supercapacitors
Akshay Tomar, Nitesh Choudhary, Gaurav Malik, **Ramesh Chandra**
ACS Appl. Nano Mater. ***7*** (2024) 26111–26125. https://doi.org/10.1021/acsanm.4c05378

23. Investigation of electrochemical properties of Pt-WO3 nanocomposite thin films for supercapacitor applications
Reenu Rani, Ashwani Kumar, M Sharma, Rinku Kumar, Ramesh Chandra, V.K. Malik
J. Phys. Chem. Solids ***197*** (2024) 112428 https://doi.org/10.1016/j.jpcs.2024.112428.

2023

1. Room temperature tunability of ferroelectricity and Di electricity in La and Mn cooped $BiFeO_3$ Nanoflakes: Implications for electronic devices applications
Arvind Kumar; Ashwani Kumar, Shekhar Tyagi; Ramesh Chandra; Davinder Kaur
Ceramic International 49 (2023) 1960-1969

2. Self-assembled Zinc Oxide Nanocauliflower and Reduced graphene oxide Nickle-foam based Noval Asymmetric Supercapacitor for Energy Storage Applications
Ashwani Kumar, Ravikant Adalati, Meenakshi Sharma, Nitin Choudhary, Kowsik Sambath Kumar, Luis Hurtado, Yeonwoong Jung,Yogesh Kumar, Jayan Thomas and **Ramesh Chandra**
Materials today Communications**, 34** (2023) 105362

3. Coexistence of Space Charge Limited and Variable Range Hopping Conduction mechanism in Sputter-deposited Au/SiC Metal-Semiconductor-Metal device
Alisha Arora, Satyendra Mourya, Neetika Singh, Sandeep Kumar, **Ramesh Chandra**, V K Malik
IEEE Transactions on Electron Devices, 70 (2023) 714

4. Passivation of macroporous Si using sputtered TiN coating for on-chip energy storage
Deepika Jhajhria, Pranjala Tiwari, and Ramesh Chandra
J. Power Sources ***561*** (2023) 232743

5. Vertically Aligned Porous V_xO_y Nanofilms with Pt Decoration for Sub-ppm H_2 Gas Sensors
Jyoti Jaiswal, Abhijeet Das, Sanjeev Kumar, Ramesh Chandra, Kazuyoshi Tsuchiya
ACS Appl. Nano Mater. ***6*** (2023) 2646-2657

6. Physiological fluid based flexible NbN||TiN supercapacitor for biocompatible energy storage applications
Siddharth Sharma; Ravikant Adalati; Nitesh Choudhary; BS Unnikrishnan; Meenakshi Sharma; P. Gopinath; Ramesh Chandra
J Alloys. Comp. ***960*** (2023) 170749

7. Investigation of Wear and Corrosion Characteristics of PTFE/TiN Composite Coating on SS-304 Fabricated by Two-step Sputtering Technique
Gaurav Malik, Pranjala, Nitesh Chaoudhary, Ramesh Chandra
Surface & Coatings Technology ***466*** **(**2023) 129660

8. Pool boiling heat transfer enhancement of R134a, R32, and R600a using cavity surfaces
Uma Kant Shete Ravi Kumar & **Ramesh Chandra**
Experimental Heat Transfer ***36*** (2023) 528-547

9. Sputter-Deposited Nano-porous ZnO Electrode for Highly Efficient Optoelectronic and Solid-State Energy Storage Devices
Gaurav Malik, Satyendra Kumar Mourya, Ananya Garg, Priyanka, **Ramesh Chandra**
J Electronic Materials, **52 (**2023) 3672–3684

10. Mn Incorporated CeO_2 Lattice Endorsement of Electrochemical Performance in Symmetric Supercapacitor Device
Meenakshi Sharma, Ravikant Adalati, Reenu Rani, Siddharth Sharma, Ashwani Kumar, Nitesh Choudhary, **Ramesh Chandra**
Energy Technol. (2023) 2300321

11. Enhanced electrochemical corrosion resistance of SS(304L) alloy with nano-pyramids c-TiN layer for saline media application

Gaurav Malik, A Kumar, R Adalati, Siddharth Sharma, A. Bansal, **Ramesh Chandra**
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12. Physiological fluid-assisted nanostructured NbN@Cu foam supercapacitor towards flexible and biocompatible energy storage applications
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