

CURRICULUM VITAE

NAME: Dr. Ramesh Chandra
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https://www.iitr.ac.in/centers/IIC/pages/People+_en_Faculty__en_.html



DATE OF BIRTH: April 24, 1964

EDUCATIONAL QUALIFICATIONS:

Ph. D (Physics): National Physical Lab. New Delhi and I. I. T. Delhi in 1993
M. Sc (Physics): A.M.U. Aligarh in 1987

TEACHING & RESEARCH EXPERIENCE: 27 Years

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

AWARDS AND RECOGNITION'S:

1. **Dr. A.N. CHATTERJEE** memorial award on **High-Tc Squids** in 1990.
2. **Visiting Scientist** at T.I.F.R, Mumbai 1997 to 1999
3. **Visiting Associate** at IUAC, New Delhi for 3 years (2002-04)
4. **Commonwealth fellowship** at **University of Cambridge, UK** (2002 – 03).
5. **INSA Fellowship** to visit **University of Cambridge, UK** (2009 – 10).
6. **INSA Fellowship** to visit **Poland Academy of Science** (June 07-28, 2019).

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 program on Analytical facilities for Pre-Ph.D students

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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>

Press Release for H₂ Sensor: Scientists design silicon based nanocauliflowers to detect hydrogen. Research Matters, 2017, <https://researchmatters.in/article/scientists-design-silicon-based-nano-cauliflowers-detect-hydrogen>

I have taught the following course to UG & PG students through Department of Metallurgical and Materials Engineering & Centre of Nanotechnology

1. **UG: MT-201A** Materials Science & Engineering (Electronic & Magnetic Materials)
2. **PG: NT-501** Nanoscale Materials, **NT-512** Fabrication of Nanostructured Material

3. **ADMINISTRATIVE EXPERIENCE:**

Head, IIC for 6 Years (2012 - 2016) & January 2020----Contd.

Head, DST SAIF (EPMA) Facility (Since 2014 ..Contd)

Staff advisor for hobbies club for 3 years (2009-12)

I have been **Staff Advisor of Sports Council** of IIT Roorkee for 6 Years (2010-16)

Chairman Safety Committee of the Centre

Member Technical Expert Committee of outside organizations

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. Indian Institute of Petroleum (IIP) CSIR, Dehradun
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

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 etc

1. Applied Physics Letters
2. Applied Surface Science
3. International Journal of Hydrogen Energy
4. Thin Solid Films
5. Sensors & Actuators: B. Chemical,
6. Materials and Design
7. Journal of Magnetism and Magnetic Materials
8. Surface & Coatings Technology
9. Journal of applied physics
10. Vacuum
11. Journal of Alloys & Compounds
12. Materials Science & Engineering B
13. Solid State Communication
14. Applied Optics
15. I Journal of Hydrogen Energy
16. Optics and Laser Technology
17. Materials Chemistry and Physics

**SPONSORED PROJECTS: (COMPLETED) As PI
(IN PROGRESS)**

S.N	Duration	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 Absorption studies of laser light in nanoparticles for laser initiation of high explosives	Rs. 20.70
13.	2014-17	DRDO	Saline water protective antireflective coatings on Si	Rs. 38.02
14.	2016-17	DRDO	Studies on Magnetic Couplinginduced by H2 Charging	Rs. 9.715
15.		CSIR	Fabrication & Characterization of MoS2 Films by PVD	Rs. 20.32
16.		DRDO		Rs. 10.80
Total Grant				Rs. 973.97(lacs)

(IN PROGRESS)

S.N	Date	Agency	Title of the Project	Grant (Lacs)
1.	2018-21	DRDO	Development of Corrosion resistant hydrophobic coatings for under saline water applications	Rs. 79.24
2.	2019-22	DST	Fabrication of High Energy Density Thin film based on chip Supercapacitor Devices Using Sputtering Technique.	Rs. 95.40
Total Grant				Rs. 174.64 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 diligen 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

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

Since my joining at IIT Roorkee my primary responsibility has been the procurement, maintenance and running of various state of art equipment and instruments for the development of Institute Instrumentation Centre (IIC) and thereby the Institute. These includes various XRDs, Fe-SEM, TEM, EPMA XRF, ICP-MS/MS, MPES, DTA/TGA, PPMS, SQUID Magnetometer, VSMs, NMR, EPR and LN₂ Plants.

In addition to looking after the maintenance & running of 25 Nos Central facilities at this Centre, I have **established** state of the art Nanoscience Laboratory to synthesize Nanostructured materials by PVD processes. These include **RF/DC Magnetron sputtering** and Multi-Chamber Excimer Laser based **PLD** (Lambda Physik, KrF) system with the facility to deposit Nanocrystalline powder, thin films and multilayers, heterostructures of functional nanomaterials.

Most of these facilities have been designed and developed in-house with the help of Native vendors to promote the '**Make in India**' concept of the Country. I have also developed a homemade **Gas sensing setup** for the characterization of different Gas Sensors (H₂, NH₃, Cl₂, H₂S & CO₂ 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 Department of Science & Technology (DST), Council of Scientific and Industrial Research (CSIR), Defense Research and Development Organization (DRDO), Department of Atomic Energy (DAE) and Central Power Research Institute (CPRI). In-addition to work 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 **12 Consultancy Projects** related to various industries.

Organized several National Workshops & Training programs for 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

BROAD AREAS OF RESEARCH:

1. Nanostructures for energy conversion and catalysis
2. Super capacitors 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 an expertise to fabricate high quality films by sputtering of SiC for high temperature electronics & other harsh environment applications.
6. Development of Wear & Corrosion Resistant Coatings on Structural Materials
7. Synthesis & characterization of ordered magnetic nanostructures

RESEARCH GUIDANCE: I am regularly supervising Graduate & Postgraduate students for their dissertations at the Centre. **26 Ph.D.** and **18 M. Tech/Phil** dissertations have been completed. **15 Ph.D** dissertations are in progress. In addition, **3 Post-Doctoral Fellows** are also working in my group.

Research Publications in Refereed Journals: **218**,
Presented in National/International **Conferences:** **125**
Delivered several Invited Talks at various National/International Conferences/Workshops across the Globe.

Professional referees with whom I have interacted in the past:

- (1) Prof. T P Singh, Distinguished Biotechnology Research Professor
Department of Biophysics,
All India Institute of Medical Sciences, New Delhi-110 029
Email: tpsingh.aiims@gmail.com, Tel. 11-26588931, **Mb: 9312249508, 9953830047**
- (2) Prof. P K Jain, Director,
Indian Institute of Technology (BHU) Varanasi-221005
Tel. No.: 0542 2368106, 2368427, 2307000, **Mb: 9897039788**
E-mail id: director@iitbhu.ac.in, pjainfme@iitr.ac.in
- (3) Prof. Pratap Raychaudhuri
Department of Condensed Matter Physics
Tata Institute of Fundamental Research, Homi Bhabha Road, Mumbai-400005
Tel. No.: 022-22782201, **Mb: 9869303774, Email: pratap@tifr.res.in,**
- (4). Prof. Dinesh Kumar, Vice Chancellor
J.C BOSE University of Science and Technology,
YMCA, Faridabad -121 006, Haryana
Tel.: 0129-2310102, **Mb: 9896246590**,
Email: vc@jcboseust.ac.in, dineshelectronics@gmail.com
- (5) Dr. D Kanjila, DAE Raja Ramanna Fellow
Former Director
Inter-University Accelerator Centre (IUAC)
Aruna Asaf Ali Marg, Near Vasant Kunj
New Delhi, 110067, INDIA
Tel.: 011-24126018, 24126022, **Mb: 9868716629**,
Email: dk@iuac.res.in, dkuac@gmail.com,

PAPERS PUBLISHED IN REFEREED JOURNALS:

(2021)

1. Low-temperature highly selective and sensitive NO₂ gas sensors using CdTe-functionalized ZnO filled porous Si hybrid hierarchical nanostructured thin films
Jyoti Jaiswal, Pranjala Tiwari, **Ramesh Chandra**
Sensors & Actuators: B. Chemical, **327** (2021) 128862
2. Tuning the wettability of transparent Nb₂O₅ nano-sliced coatings to enhance anti-corrosion property
Ashwani Kumar; Gaurav Malik; Ravikant Adalati; Vipin Chawla; M K Pandey, **Ramesh Chandra**
Mats. Sci. Semicond. Proc. **123** (2021) 105513
3. Transformation nanorod to nanotube of highly oriented novel h-BN hierarchical nanostructured arrays synthesized via two-step wet chemical route
Ankit Kumar; Gaurav Malik; **Ramesh Chandra**, Rahul S Mulik
Mater. Charact. **171** (2021) 110820
4. Rare Earth Doped CaWO₄ and CaMoO₄ Thin Films For White Light Emission
Puneet Kaur, Atul Khanna, Jatinder Kaur, Rinku Kumar, and **Ramesh Chandra**
J. Vac. Sci. Technol. B **39**, (2021) 012205
5. Elevated performance of binder-free Co₃O₄ electrode for the supercapacitor applications
Meenakshi Kaushik, Ravikant Adalati, Ashwani Kumar, Vipin Chawla, **Ramesh Chandra**
Nano Express **2** (2021) 010002
6. Controllable synthesis of tunable aspect ratios novel h-BN nanorods with an enhanced wetting performance for water repellent applications
Ankit Kumar; Gaurav Malik, K. Goyal, Neha Sardana, Rahul S Mulik, **Ramesh Chandra**
Vacuum **184** (2021)109927
7. Anticorrosive Behavior Enhancement of Stainless Steel 304 through Tantalum-Based Coatings: Role of Coating Morphology
Jignesh Hipara, Vipin Chawla & Ramesh Chandra
J Materials Engg Performance, **30**(2021) 1895–1905
8. Self-standing MoS₂/CNT and MnO₂/CNT one dimensional core shell heterostructures for asymmetric supercapacitor application
Pranjala Tiwari, Dawid Janas and **Ramesh Chandra**
Carbon, **177** (2021) 291-303
9. Corrosion behavior of pulse laser deposited 2D nanostructured coating prepared by self-made h-BN target in salinity environment
Ankit Kumar, Gaurav Malik, Mritunjay Kumar Pandey, **Ramesh Chandra**, Rahul S Mulik
Ceramics International, **47** (2021)12537-12546

2020

1. Effect of annealing parameters and activation top layer on the growth of copper oxide nanowires
Vipin Chawla, Neha Sardana, Harshdeep Kaur, Arvind Kumar and **Ramesh Chandra**
Appl. Surf. Sci. **504** (2020) 144369
2. MoS₂ hybrid heterostructure thin film decorated with CdTe quantum dots for RT NO₂ gas sensor.
Jyoti Jaiswal, Amit Sanger, Pranjala Tiwari, **Ramesh Chandra**
Sensors & Actuators: B. Chemical, **305** (2020) 127437
3. Investigation of tantalum oxynitride for hard and anti-corrosive coating application in diluted hydrochloric acid solutions
Jignesh Hirpara, Vipin Chawla and **Ramesh Chandra**
Materials Today Commn. **23**, (2020) 101113
4. Bluish emission of economical phosphor h-BN nanoparticle fabricated via mixing annealing route using non-toxic precursor
Ankit Kumar, Gaurav Malik, Rahul S Malik and **Ramesh Chandra**
J Solid State Chemistry, **288** (2020) 121430
5. Catalyst free MnO₂ nanoflakes for Electrochemical Capacitor"
Ashwani Kumar, Ravikant Adalati, M. kausahik, Yogesh Kumar and **Ramesh Chandra**
J. Electrochem. Soc. **167** (2020) 116509
6. The role of post annealing temperature on a facile synthesis of 2D h-BN nanoflowers
Ankit Kumar, Gaurav Malik, Rahul S Malik and **Ramesh Chandra**
Ceramics International, **46** (2020) 21800-04
7. A High-Performing Asymmetric Supercapacitor of Molybdenum Nitride and Vanadium Nitride Thin Films as Binder-Free Electrode Grown through Reactive Sputtering
Ravikant Adalati, Ashwani Kumar, Yogesh Kumar, and **Ramesh Chandra**
Energy Technol. **8** (2020) 2000466
8. Fabrication of highly responsive room temperature H₂ sensor based on vertically aligned edge-oriented MoS₂ nanostructured thin film functionalized by Pd nanoparticles
Jyoti Jaiswal, Pranjala Tiwari, Preetam Singh and **Ramesh Chandra**
Sensors & Actuators: B. Chemical, **325** (2020) 128800
9. Influence of SiC thin films thickness on the electrical properties of Pd/SiC thin films for H₂ gas sensor
Mukesh Kumar and **Ramesh Chandra**
Vacuum **182** (2020) 109750
10. Catalyst free approach for the fabrication of CoN//Zn₃N₂ asymmetric configuration for highly efficient flexible supercapacitor
Ravikant Adalati, Ashwani Kumar, M Kaushik, Pranjala Tiwari, **Ramesh Chandra**
Appl. Phys. Lett. **117**, (2020) 123904
11. Transition metal nitride nanoflake thin film grown by DC-magnetron sputtering for high-performance supercapacitor applications
Ravikant Adalati, Ashwani Kumar, Gaurav Malik and Ramesh Chandra
AIP Conf. Proceedings **2265**, (2020); 030647

12. Ultrahigh Rate Supercapacitor based on Self-Standing Carbon Nanotubes Supported Vertically Aligned MoS₂ Sheets"
Pranjala Tiwari, Dawid Janas, Ramesh Chandra
MRS Advances, 5 (2020) 2495-2502

2019

1. Co-sputtered Antibacterial and Biocompatible Nanocomposite Titania-Zinc Oxide thin films on Si substrates for Dental Implant applications
Shreya Goel, Paritosh Dubey, S Ray, R Jayaganthan, Aditya B Pant & **Ramesh Chandra**
Maters. Technol: Adv. Perform. Maters. 34 (2019) 32-34
2. Ellipsometric investigation of room temp. grown highly-oriented anatase TiO₂ thin films
Jyoti Jaiswal, Satyendra Mourya, Gaurav Malik, **Ramesh Chandra**
J. Electronic Materials, 48, (2019) 1223-1234
3. Development of Pd-Pt functionalized high performance H₂ gas sensor based on silicon carbide coated porous silicon for extreme environment applications
Satyendra Mourya, Jyoti Jaiswal, Gaurav Malik, Brijesh Kumar, **Ramesh Chandra**
Sensors & Actuators: B. Chemical:, 283 (2019) 373-383
4. Effect of annealing parameters on optoelectronic properties of highly ordered ZnO thin films
Gaurav Malik, Satyendra Mourya, Jyoti Jaiswal, **Ramesh Chandra**
Mates. Sci. Semicond. Processing 100 (2019) 200–213
5. Surface modification of sputter deposited γ -WO₃ film for scaled electrochromic behavior
Gaurav Malik, Satyendra Mourya, Jignesh G. Hirpara, **Ramesh Chandra**
Surf. & Coat. Technol. 375 (2019) 708–714
6. Influence of barrier inhomogeneities on transport properties of Pt/ MoS₂ Schottky barrier junction
Neetika Sandeep Kumar, Amit Sanger, Hemant K. Chourasiya, Ashish Kumar, K. Asokan, **Ramesh Chandra**, V.K. Malik
J. Alloys. Comps. 797, (2019) Pages 582-588
7. Hierarchical growth of MoS₂@CNT heterostructure for all solid-state symmetric supercapacitor: Insights into the surface science and storage mechanism
Pranjala Tiwari, Jyoti Jaiswal, **Ramesh Chandra**
Electrochimica Acta 324 (2019) 134767
8. Effect of sputtering process parameters on structural and optical properties of CdS thin films
Ashwani Kumar, Vipin Kumar, **Ramesh Chandra** and Yogendra K Gautam
Mater. Res. Express, 6 (2019) 106448
9. Optical and electrical properties of highly ordered α -, γ - and $\alpha + \gamma$ -MnS films deposited by reactive sputtering technique
Pranjala Tiwari, Jyoti Jaiswal, **Ramesh Chandra**
J. Appl. Phys. 126, (2019) 213108
10. Tantalum Oxide Thin Film on a Pt- Decorated Glass Substrate for pH-Sensing Application of Drinking Water,

J.G. Hirpara & **Ramesh Chandra**
Integrated Ferroelectrics, **202**, (2019) 13-19, DOI: 10.1080/10584587.2019.1674819

2018

1. Thickness dependent interfacial magnetic coupling in $\text{La}_2\text{NiMnO}_6/\text{LaMnO}_3$ multilayers
Amit Kumar Singh, Samta Chauhan, **Ramesh Chandra**
J. Magn. Mag. Materials, **448**, (2018)180-185
2. Structural and optical characteristics of in-situ sputtered highly oriented 15R-SiC thin films on different substrates,
Satyendra Mourya, Jyoti Jaiswal, Gaurav Malik, Brijesh Kumar, **Ramesh Chandra**
J Appl. Phys, **123**, (2018) 023109
3. Fabrication of porous Si filled Pd/SiC nanostructured films for high performance H_2 gas sensor
Arvind Kumar, Ashwani Kumar, **Ramesh Chandra**
Sensors & Actuators: B. Chemical **B 264** (2018) 10-19
4. Tunable optical properties of plasmonic Au/ Al_2O_3 nanocomposite thin films analyzed by spectroscopic ellipsometry accounting surface characteristics
Jyoti Jaiswal, Gaurav Malik, Satyendra Mourya, and **Ramesh Chandra**
J Optic. Society America A, **35** (2018)740-747
5. Evaluation of Nanocrystalline Hafnium Nitride Coating Exposed to Molten Uranium
A. Ravi Shankar, Vipin Chawla, P. Venkatesh, **Ramesh Chandra**, U. Kamachi Mudali
Surface Engineering, **34**, (2018) 547–553
6. One Step Sputtered Grown MoS_2 Nanoworms Binder Free Electrodes for High Performance Supercapacitor Application
Neetika, Amit Sanger, Vivek Kumar Malik, **Ramesh Chandra**
I. J. Hydrogen Energy, **43**, (2018) 11141-49
7. The Role of the Substrate on Photophysical Properties of Highly Ordered 15R-SiC Thin Films
Satyendra Mourya, Jyoti Jaiswal, Gaurav Malik, and **Ramesh Chandra**
J Elec Materi, **47** (2018) 5259- 2568 <https://doi.org/10.1007/s11664-018-6639-1>
8. Microstructural & surface morphological studies on Co doped ZnS diluted magnetic semiconductor thin films
Shiv P. Patel, J.C. Pivin, G. Maity, R. P. Yadav, **R. Chandra**, D. Kanjilal, L. Kumar,
J Mat. Sci. Materi Electronics, **29** (2018) 13541–13550
9. Hydrogenation and dehydrogenation of hydrophobic Pd-capped vertically aligned porous Ti nanoflake thin film
Jyoti Jaiswal, Gaurav Malik, Satyendra Mourya, and **Ramesh Chandra**
JOM, **70** (2018) 2179-2184
10. Structural transformation, Griffiths phase and metal-insulator transition in polycrystalline $\text{Nd}_{2-x}\text{Sr}_x\text{NiMnO}_6$ ($x = 0, 0.2, 0.4, 0.5$ and 1) compound
Amit Kumar Singh, P. Balasubramanian, Ankita Singh, M. K. Gupta, **Ramesh Chandra**
J. Phys.: Condens. Matter, **30** (2018) 355401

11. Phase-dependent Structural and Electrochemical Properties of Single Crystalline MnS Thin Films deposited by DC Reactive Sputtering
Pranjala Tiwar, Gaurav Malik and **Ramesh Chandra**
J Applied Physics **124**, (2018) 195106
12. Nanostructured Hafnium Oxide Thin films for Sensing CO: An Experimental Investigation
Dave, V.; Mishra, P. K.; **Chandra, R.**
Materials Today: Proceedings 5 (2018) 23286–23292
13. Effect of annealing temperature and CdCl₂ treatment on the photo-conversion efficiency of CdTe/Zn_{0.1}Cd_{0.9}S thin film solar cells
Singhal, Sonal; Chawla, Amit Kumar; Gupta, Hari Om, **Ramesh Chandra**
Bull. Mater. Sci. **41**, (2018) 159

2017

1. Antisite disorder induced spin glass exchange bias effect in Nd₂NiMnO₆ epitaxial thin film
Amit Kumar Singh, Samta Chauhan, **Ramesh Chandra**
Appl. Phys. Lett., **110** (2017) 102402 (I.F. – 3.14)
2. Influence of subs. induced strain on B-site ordering & mag. properties of Nd₂NiMnO₆ epitaxial thin films
Amit K Singh, Samta Chauha, P Balasubramanian, Saurabh K Srivastava, **Ramesh Chandra**,
Thin Solid Films, **629** (2017) 49-54 (I.F. – 1.76)
3. Experimental evidence of spin glass and exchange bias behavior in sputtered grown α -MnO₂ nanorods
Ashwani Kumar, Amit Sanger, Amit Kumar Singh, Arvind Kumar, Mohit Kumar, **Ramesh Chandra**
J. Magn. Mag. Materials, **433** (2017) 227-233
4. Thickness dependent structural and magnetic properties of Nd₂NiMnO₆ epitaxial thin films
Amit K Singh; Samta Chauhan, Ramesh Chandra,
Thin Solid Films, **625** (2017) 17-23 (I.F. – 1.76)
5. Adsorptive removal of Pb (II) ions aqueous solution using CuO synthesized by sputtering method
Monu Verma, Inderjeet Tyagi, **Ramesh Chandra**, Vinod Kumar Gupta
J. Mol. Liq., **225** (2017) 936-944
6. Palladium decorated Silicon Carbide Nanocauliflowers for highly sensitive and selective hydrogen gas sensor"
Amit Sanger, Pawan Kumar Jain, Yogendra Kumar Mishra, **Ramesh Chandra**
Sensors & Actuators B: Chemical, **242** (2017) 694-699. (I.F. – 4.75)
7. Single-step growth of pyramidally NiO nanostructures with improved supercapacitive properties
Ashwani Kumar, Amit Sanger, Arvind Kumar, **Ramesh Chandra**
I. J. Hydrogen Energy, **42**, (2017) 6080-87 (I.F. - 3.20)
8. Cavitation Erosion Behavior of Nitrogen Ion Implanted 13Cr4Ni Steel
S. Verma, P. Dubey, A. W. Selokar, D. K. Dwivedi, **R. Chandra**
Trans Indian Inst Met. **70** (2017) 957–965 (I.F. – 0.54)

9. Porous silicon filled with Pd/WO₃-ZnO composite thin film for enhanced H₂ gas-sensing performance
Arvind Kumar, Amit Sanger, Ashwani Kumar, **Ramesh Chandra**
RSC Advances, **7**, (2017) 39666 – 39675 (3.84)
10. Determination of optical and dispersion energy parameters of highly ordered hydrophobic ZnO thin films using spectroscopic ellipsometry"
Gaurav Malik, Jyoti Jaiswal, Satyendra Mourya, and **Ramesh Chandra**
J Appl. Phys. **122**, (2017)143105
11. Enhanced Optical Absorption of Ti Thin Film: Coupled Effect of Deposition & Post-deposition Temperatures
Jyoti Jaiswal, Satyendra Mourya, Gaurav Malik, Samta Chauhan, Ritu Daipuriya, Manpreet Singh & **Ramesh Chandra**
JOM, **69**, (2017) 2383

(Ramesh Chandra)