**CURRICULUM VITAE**



**Name: Dr Charu Arora**, FICCE, FICC

**PERSONAL DETAILS**

Date of Birth: January 18, 1973

Position: Professor, Department of Chemistry, Guru Ghasidas University (A Central University), Koni, Bilaspur, C.G., India-495009.

Phone: 91-7587709551

Permanent Address: MH-48, Pallavpuram, Phase-II, Meerut-250110, UP, India

Phone:+91-7587709551 (Mobile)

E-Mail:[charuarora77@gmail.com](mailto:charuarora77@gmail.com)

**ACADEMIC QUALIFICATIONS**

* Ph.D.Chemistry(Bioactive natural products), Gurukul Kangri University, Hardwar 2003
* Qualified NET Conducted by UGC/ CSIR, 2001
* M.Sc. Chemistry, IIT Roorkee (formerly University of Roorkee), 1995 securing first division.
* B. Sc., KLDAV Degree College Roorkee, Meerut University, 1992securing first division.
* Intermediate, UP Board, Allahabad, 1989 securing first division.
* Matriculation, UP Board, Allahabad, 1987 with 78.2% marks and **National Award** and Scholarship by UP Govt. on the basis of merit.

**PROFESSIONAL DETAILS**

* **20 years’ experience** in graduate/post-graduate teaching
* **Over 15years’ experience** in research & development of material Science and botanical pesticides using suitable synergists, methods of extraction and isolation of bioactive natural products from plants, research experience in the field of Physical Chemistry (Synthesis, characterization and applications of nano materials, Kinetics, adsorption, thermal techniques etc.) and Environmental Chemistry
* Expertise in isolation, purification, characterization, analysis and technology scale up leading to development of bioactive natural products with pest control and other properties, study on synergistic effect.

**Research Projects Completed:**

* UGC (Govt. of India) funded major research project entitled “Isolation and Characterization of Bioactive Components from Plants of Northern India” F. No. 34-346\2008 (SR) has been awarded for a period of three years w e f 1-2-2009, funds Rs 568000/. Objective of Project: To explore the medicinal and agricultural applications of plants of Northern India, to isolate bioactive components responsible for antimicrobial potential, to find some suitable synergists and develop ecofriendly formulations.
* WRIC supported project titled “Phytochemical Screening and Activity Evaluation of Some Medicinal Plants”, July 2009-June 2010.
* BARC funded project “Study of reaction between alkaline earth metal Oxalates with Uranyl Oxalate by Thermogravimetry”, Oct.2007-Aug. 2008.
* Asian Development Bank-funded project entitled “Developing management option in wheat-rice cropping system” at Soil Chemistry Lab, Project Directorate for Cropping System Research, Modipuram, Meerut- 250110, May 2001-Dec 01.
* NTPC funded project entitled “Effect of Change of Chemical and Thermal Parameters on Life of Aquatic Animals” (worked as Project Officer at National Institute of Hydrology, Roorkee) July 1995.

**PhD Thesis supervision:**

Three (03) Ph D students have been awarded their Ph. D. degrees under my supervision:

1. Dipti Bharti: Degree awarded on 7th Aug 2013.

2. Vinita Tamrakar: Degree awarded on 28 Oct 2020.

3. Sanju Soni: Degree awarded on 15 June 2021.

**Post-Graduate Project/Thesis Supervision:51 M. Phil and/M. Sc. Thesis/ Project supervised**

**AWARDS/ SCHOLARSHIPS/ HONOUR**

Organised Refresher course (as coordinator) titled “Synthetic and Natural Products: Chemical and Medicinal Aspects” as Coordinator from 11th June to 30th June 2018 at HRDC, Guru Ghasidas University, Bilaspur, CG, India.

Got SERS Fellow Award 2017 for contribution in the field of Bioactive Natural Product (Chemistry) during the International Conference on Innovative Approaches in Applied Sciences and Technologies, organized jointly by Nanyang Technological University, Singapore, Scientific Educational Research Society and National University of Singapore during 19-23 June 2017 at Nanyang Technological University, Singapore.

Organized DAE-BRNS-BARC National Workshop on Radiochemistry and Applications of Radioisotopes as Convener during 7th Aug 2017-12th Aug 2017 at Department of Chemistry, Guru Ghasidas University, Bilaspur.

Got **Gold Medal Award** of Hi-Tech Horticulture Society for outstanding contribution in Chemistry, during Global Agriculture &Innovation Conference (27th-29th Nov 2016) at Noida International University, Noida.

Got **Science Initiator Award** byScientific Educational Research Society, for contribution on applications of Chemical Science in Agriculture during International Conference on Innovative Approaches in Applied Sciences and Technologies, organized by Faculty of Science, Kasetsart University, Bangkok 10900, Thailand and Scientific Educational Research Society, India at Faculty of Science, Kasetsart University, Bangkok during 1-5 Feb 2016.

Chaired technical session at International Conference on Innovative Approaches in Applied Sciences and Technologies, organized by Faculty of Science, Kasetsart University, Bangkok 10900, Thailand and Scientific Educational Research Society, India at Faculty of Science, Kasetsart University, Bangkok during 1-5 Feb 2016.

Chaired technical session in International Conference onGlobal Initiatives in Applied Sciences and Green Technologies, held at SRM University, Modinagar, Distt Ghaziabad during 9-11 Sept 2016.

Chairperson in technical session X-Interdisciplinary Science inInternational Conference on Innovative Approaches in Applied Sciences and Technologies, Scientific Educational Research Society India and Faculty of Science, Kasetsart University, Bangkok 10900, Thailand held during 1-5 Feb 2016.

Co-coordinator in **Refresher Course on Research Methodology** organized by UGC-Human Resource Development Centre of Guru Ghasidas Vishwavidyalaya during 13th June to 2nd July 2016.

Conducted a technical session as **Co-convener** during International Conference on Global IPR System and WTO Issues held on 16-17 November 2013 at CCS University, Meerut.

Acted as **Judge** in poster session during International Conference on “Global IPR System and WTO Issues” held on 16-17 November 2013 at CCS University, Meerut.

**SARC Gold Medal Award 2011** conferred by Scientific and Applied Research Centre, CCS University, Meerut for outstanding contribution in Chemistry Research on 14th Sept 2011.

**Best Paper Award**, 2011 in 5th International Congress of Chemistry and Environment (ICCE 2011) held at Port Dickson, Malaysia on May 27-29, 2011.

**FICCE Fellowship** conferred by **International Congress of Chemistry and Environment**, 2009.

FICC Fellowship conferred by Indian Council of Chemists, 2008.

**Award** worth Rs 10000/ from Punjab State Council of Science and Technology, Chandigarh, June 2011.

Got financial assistance of Rs 7750/ from **CSIR**, New Delhi to attend the International Congress of Chemistry and Environment held at Ubonratchthani, Thailand, during 21-23 Jan. 2010.

Received financial assistance of Rs 34000/ from **AICTE**, New Delhi to attend the International Congress of Chemistry and Environment held at Ubonratchthani, Thailand, during 21-23 Jan. 2010.

Award worth Rs 5000/ from Vice Chancellor, UP Technical University, Lucknow, 2009.

**Young Scientist Award**, 2008 by Society for Recent Development in Agriculture, SVBP University of Agriculture and Technology, Meerut for outstanding contributions in the field of application of Chemistryin Agriculture, conferred during 4th National Symposium on Scenario of Agriculture in Changing Climatic Conditions, held at S.V.B.P. University of Agriculture and Technology, Meerut, 18-19 Oct. 2008.

**Best Paper Award**, 2009 in 1stIndian Agricultural Scientist and Farmer’s Congress on Technological Innovations for Enhancing Agriculture Production, ChaudharyCharanSinghUniversity, Meerut, held on Oct 3-4, 2009.

**Senior Research Fellowship** awarded by Department of Biotechnology, Govt. of India, New Delhi (April98-april 01).

**National award** and scholarship during Intermediate on the basis of High School merit by U.P. Government.

**Ekikrit Scholarship** during High School education on the basis of Ekiktit Scholarship exam conducted by U.P. State Govt.

**U.P. State Government Scholarship** during class 6th to class 8th on the basis of exam conducted in class 5th

**Administrative Responsibilities:**

**Administrative Warden**, Rajmohoni Devi Girls Hostel, Guru Ghasidas University, (23 July 2021-22 Aug 2022).

**Administrative Warden**, Mini Mata Girls Hostel, Guru Ghasidas University, (22 Aug 2022-Continue)

Member Secretary Apex Complaint Committee, GGU (2016-2019)

Centre Superintendent, End Sem Exam, GGU (2021-22)

Centre Superintendent, End Sem Exam, GGU (2017-18)

Centre Superintendent, VET Exam, GGU (2018)

Member Media Cell, GGU (2015-continue)

Head, Department of Chemistry, GGU (2017-2019)

Member Central Purchase Committee, GGU (2021-continue)

Member Academic Council, GGU (2017-2019)

Chairman, Board of Studies, Department of Chemistry, GGU (2017-2019)

Chairman, Departmental Research Committee, Department of Chemistry, GGU (2017-2019)

Member School Board, School of Physical Sciences, GGU (2017-2019)

Member Board of Studies, Member, DRC, GGU (2015-continue)

Member, Board of Studies, O.P. Jindal University, Raigarh (2018-2020); Member DRC, OP Jindal University, Raigarh (2018-2020); Member Board of Studies, Pt. Sundar Lal Sharma Open University, (2018-continue); Member, Board of Studies, Galgotias University (2013); Member DRC, Galgotias University, Greater Noida (2013-2015). Division Chair, Division of Nanotechnology, Galgotias University, Greater Noida (2013); Head, Department of Chemistry, RITS, Bhopal (2003-2004).

**Membership of Professional Societies**:

Life Member IANCAS, Bhabha Atomic Research Centre, Mumbai (Membership number LM-1772).

Life Member of Indian Society of Mass Spectrometry, Fuel Chemistry Division, Bhabha Atomic Research Centre, Mumbai (LM no 692).

Fellow Member of International Congress of Chemistry and Environment, 2009.

Life Member of Indian Council of Chemists, Agra.

Life Member of Society for Recent Development in Agriculture, SVBP University of Agriculture and Technology, Meerut.

Life Member of Scientific and Applied Research Centre, Meerut, India.

Life Member Indian Science Congress Association Haridwar Chapter.

Life Member of Society of Biopesticide Sciences, Jalandhar.

Life Member of Indian Botanical Society.

**INTERNATIONAL VISITS**

Visited Nanyang Technical University, Singapore to deliver invited talk in technical session of 2ndInternational Conference on Innovative Approaches in Applied Sciences and Technologies jointly organized by NTU, National University of Singapore and SERS during 19-23 June 2017.

Visited Kasetsart University, Bangkok, Thailand and delivered invited talk in technical session of International Conference on Innovative Approaches in Applied Sciences and Technologiesduring 1st to 5th Feb 2016.

Visited Port Dickson, Malaysia, and presented research papers in V International Congress of Chemistry and Environment held at Port Dickson,Malaysia during May 2011.

Visited Singapore and attended Chemistry Workshop (Organised at the occasion of International Year of Chemistry) at Science Centre, Singapore, June 2011.

Visited Ubonratchthani University, Ubonratchthani, Thailand and Asian Institute of Technology, Bangkok, Thailand and presented research papers in IVth International Congress of Chemistry and Environment held at Thailand during Jan 2010.

**EDITOR/MEMER EDITORIAL BOARD**

1. Member Editorial Board, Characterization and application of nanomaterials, 2018-continue.
2. Editor for Thematic Issue of The Open Bioactive Compounds Journal, Bentham, 2020

**LIST OF PUBLICATIONS**

**PATENTS**

1. CharuArora(2010) “A process for the preparation of herbal composition for the management of wet bubble of button mushroom” Application no. 968/DEL/2010.
2. Chugh C. A. and Bharti D. (2012) “A process for the preparation for synergistic composition for the management of scruf and wilt of potato”, Application no. 867/DEL/2012.

**INTERNATIONAL JOURNALS:**

1. N. Tripathi, M K Ghoshisht, S K Sahu, C. Arora, Applications of artificial intelligence to drug design and discovery in the big data era: a comprehensive review, Molecular Diversity (2021) 25:1643–1664, <https://doi.org/10.1007/s11030-021-10237-z>, Impact factor 2.934
2. Charu Arora, Vinita Tamrakar and Dhruv Arora, Chemical constituents and biological activities

of Curcuma caesia, Research Journal of Chemistry and Environment, 26 (2) 2022, 141-148, Scopus indexed, Impact factor 0.636.

1. A. Patel, SanjuSoni, J. Mittal, Alok Mittal, Charu Arora, Sequestration of crystal violet from aqueous solution using ash of black turmaric rhizome, Desalination and Water Treatment, 2021, 220 (2021) 342–352 doi: 10.5004/dwt.2021.26911, Impact Factor 1.320.
2. R. Kumar, A. Kumar, M. Sundararajan, S. Sharma and C. Arora, Feasibility Analysis of Coal Combustion Residues as Fertilizer for Agricultural Use, Research Journal of Chemistry and Environment, Vol. 25 (4) April (2021), pp35-41.
3. D. Bharti, R. Singh and C Arora, Study on effect of variation of geographical and climatic conditions on chemical constituents and biological activity of *Emblica officinalis*, Research Journal of Chemistry and Environment, Vol 25 (10) 2021, 114, e-issn: 2278-4527 print issn: 0972-0626
4. Sanju Soni, P. K. Bajpai, Dipti Bharti, Jyoti Mittal, Charu Arora, Removal of crystal violet from aqueous solution using iron based metal organic framework, Desalination and Water Treatment, (2020) 205, 386–399, doi: 10.5004/dwt.2020.26387, Impact factor 1.320.
5. Charu Arora and Vinita Tamrakar, Chenopodium album Linn.: Phytoconstituents, Medicinal and Biological Properties, Research Journal of Chemistry and Environment, 2020, Vol. 24 (10), 182-195.
6. Sanju Soni, P K Bajpai, Jyoti Mittal and Charu Arora, Utilisation of cobalt doped Iron based MOF for enhanced removal and recovery of methylene blue dye from waste water, Journal of Molecular Liquids 314 (2020),doi10.1016/j.molliq.2020.113642, Impact Factor:6.165
7. Charu Arora, Pramod Kumar, Sanju Soni, Jyoti Mittal, Alok Mittal and Bhupender Singh, Efficient removal of malachite green dye from aqueous solution using *Curcuma caesia* based activated carbon, Desalination and Water Treatment, 195 (2020) 341–352, doi: 10.5004/dwt.2020.25897, Impact factor 1.320.
8. C. Arora, A. Sharma, S. Soni and Y. Naik, A mechanistic approach for the thermal reaction of strontium oxalate with uranyl oxalate using TG technique, Research Journal of Chemistry and Environment, Vol. 24 (4) (2020), 1-9.
9. C. Arora, D. Sahu, D Bharti, V. Tamrakar, S. Soni, S. Sharma, Adsorption of hazardousdye crystal violet from industrial waste using low-cost adsorbent *Chenopodium album*, Desalination and Water Treatment, (2019) vol. 167, pp. 324-332,doi: 10.5004/dwt.2019.24595 impact factor 1.383.
10. C. Arora, S. Soni, S. Sahu, J. Mittal, P. Kumar, P K Bajpai, Iron based metal organic framework for efficient removal of methylene blue dye from industrial waste, Journal of Molecular Liquids 284 (2019) 343–352,doi.org/10.1016/j.molliq.2019.04.012,Impact Factor: 6.165, Citations 110.
11. Sanju Soni, P K Bajpai and Charu Arora, [A review on metal-organic framework: synthesis, properties and application](javascript:void(0)), Characterization and application of nanomaterials, 2020, Vol 3 (2), pp 87-106, doi:10.24294/can.v2i1.551, citations 31.
12. Ritesh Kumar, Sadanand Sharma, Ajit Kumar, Charu Arora\*, Coal combustion residues characterization using scanning electron microscopy and energy dispersive X-ray (SEM-EDXA) analysis, Characterization and application of nanomaterials2020, Vol 3(2),pp60-72, doi:10.24294/can.v2i1.595.
13. Vinita Tamrakar, Dhruv Arora and Charu Arora, Phytochemical Screening, proximate and elemental analysis of plant species Curcuma caesia, Curcuma longa and Chenopodium album, Research Journal of Chemistry and Environment, 23(9), 113-117 (2019).
14. Charu Arora, Vinita Tamrakar, [Gmelina arborea: A bioprospective plant](https://www.researchgate.net/profile/Charu_Arora2/publication/336061306_Gmelina_arborea_A_bioprospective_plant/links/5dd1188d299bf1b74b48b3f2/Gmelina-arborea-A-bioprospective-plant.pdf), Progressive Agriculture, 19(2), 222-225(2019).
15. Vinita Tamrakar and Charu Arora, *Curcuma caesia*: present status and future prospect as herbal drug, Progressive Agriculture, 19(2), 258-261(2019).
16. Charu Arora, Dipti Bharti, Dhruv Arora and Vinita Tamrakar, A review on phytoconstituents and medicinal properties of *Emblicaofficinalis,*Annals of Horticulture 11 (1), 2018,1-12.doi 10.5958/0976-4623.2018.00002.6
17. Vinita Tamrakar, Dhruv Arora and Charu Arora, Phytochemical screening of leafy vegetables of Chhattisgarh state, Annals of Horticulture 10 (2): 202-206 (2017)doi 10.5958/0976-4623.2017.00034.2
18. Charu Arora and Vinita Tamrakar, *Gmelina arborea*: Chemical Constituents, pharmacological activities and applications, International Journal of Phytomedicine, 2017, 9 (4), 528-542, DOI:10.5138/09750185.2149.
19. Charu Arora, Aditi Sharma, Sanju Soni, G A Ramarao and Y NaikApplication of Thermogravimetric Analysis in Study of Solid-State Reaction between Strontium Oxalate and Uranyl Oxalate, Journal of Thermal Analysis and Calorimetry, (2016) 124:43–49, doi: 10.1007/s10973-015-5103-1, impact factor 4.626, Date of publication March 2016, Online publication Oct 2015.
20. Charu Arora, ShaluChejara, G A Ramarao and Y Naik, Application of Thermogravimetric Analysis in Study of Solid-State Reaction between Barium Oxalate and Uranyl Oxalate, Journal of Thermal Analysis and Calorimetry, (2016) 124:51–56, doi:10.1007/s10973-015-5085-z, impact factor 4.626, Date of publication March 2016, Online publication Oct 2015.
21. .
22. Charu Arora Chugh, Asmita Sharma, Aditi Sharma, Y.P.Naik, and G.A. Rama Rao, Solid State Reactions of Calcium Oxalate with Uranyl Oxalate: Application of Thermogravimetric Analysis, Journal of Scientific and Applied Research, 7(1) 2016, pp1-4, ISSN: 0975-9743.
23. Charu Arora Chugh and Madhu Vats, Effect of Automobile Fuel Emission on Protein Level in the Lower Half Leaves of Roadside Plants around the Selected Junction of National Highway-58 (India), Journal of Scientific and Applied Research, 6(2) 2015, pp7-12.ISSN: 0975-9743.
24. Charu Arora Chugh, Biocidal potential and phytochemical screening of some medicinal plants collected from Meerut (UP) and Haridwar (UK), Journal of Scientific and Applied Research, 6(1): 6-9 (2015).
25. Charu Arora and Dipti Bharti, Chemical characterization of antifungal constituents of *Emblica officinalis*, Allelopathy Journal, 2014, 34 (1), 155-178, Impact factor 1.045, Date of Publication Oct 2014.
26. V. K. Lamba, S. J. Engles, R.S. Sawhney, **C. Arora** and D.Engles, Charge transport through a molecular wire for flexible electronics, Molecular Physics*,* 2013Vol. 111, No. 4, 517–523, [doi.org/10.1080/00268976.2012.729098](http://dx.doi.org/10.1080/00268976.2012.729098),Impact Factor 1.962.
27. Charu Arora Chugh, AjitaBanthiya, Deepika, Dipti Bharti, G A Ramarao and Y.P. Naik, Study of Solid State Reaction Involved in Synthesis of Nano-Structured Th0.9Ce0.1O2, Asian Journal of Chemistry, Vol 25, No 3 (2013) 1394-1396, Scopus indexed.
28. **Charu Arora Chugh**, Antifungal Potential of Transition Metal Hexacyanoferrates for Management of Dry Bubble of *Agaricus bisporus*, Research Journal of Chemistry and Environment, 17(6),2013, 12-16, Impact factor 0.636.
29. Vijay Lamba, Suman J. Wilkinson and **Charu Arora**, [Designing molecular devices by altering bond lengths](http://www.springerlink.com/content/j3281x8366776k07/), Journal of Molecular Modelling, Vol. 17, no 12, (2011**)** p. 3251-3255. IF 1.984**.**
30. Y.P. Naik, G A Ramarao, AjitaBanthiya, Deepika, and **Charu Arora**, Synthesis and characterization of nano-structured Th1-xCexO2 mixed oxide, **Journal of Thermal Analysis and Calorimetry,** Vol 107, 2012**,**p 107-112, DOI no.10.1007/s10973-011-1533-6, Impact factor **4.626**.
31. Dipti Bharti, Suman Gupta and **Charu Arora** Chugh,Antimicrobial activity of medicinal plants against some pathogenic microbial strains, International Journal of Phytomedicine, Vol. 5, No 2, 2013, 154-158.
32. **Charu Arora**Chugh and Dipti Bharti, Phytochemical analysis and screening of antibacterial activity of some selected Indian medicinal plants, International Journal of Phytomedicine, Vol. 4, No. 2, 2012, 261-265, Impact Factor 0.89.
33. Charu Arora Chugh and Dipti Bharti,Antifungal Potential of Transition Metal Hexacyanoferrates Against Fungal Diseases of Mushroom, Open Journal of Synthesis Theory and Application, 1, 2012, 23-30; doi:10.4236/ojsta.2012.13005.
34. **Charu Arora**Chugh, Sanjeev Mehta and Heena Dua, Phytochemical Screening and Evaluation of Biological Activities ofSome Medicinal Plants of Phagwara, Punjab, Asian Journal of Chemistry, Vol. 24, No. 12 (2012), 5903-5905.
35. **Charu Arora Chugh** and Dipti Bharti, Antimicrobial Potential of Transition Metal Hexacyanoferrates, Asian Journal of Chemistry, Vol. 24, No. 12 (2012), 5879-5881,IF 0.3.
36. Dipti Bharti, **Charu Arora** and Suman Gupta, Synergistic Effect of Antifungal Activity of Medicinal Plants with Transition Metal Ferrocyanides Against *Rhizoctonia solani,* Asian Journal of Chemistry; Vol. 24, No. 10 (2012), 4650-4652.
37. Dipti Bharti, **Charu Arora** and Gurleen Kaur, Antifungal Screeningof Some Transition Metal Ferrocyanides Against *Aspergillus niger* and *Candida albicans*,Asian Journal of Chemistry; Vol. 24, No. 3 (2012), 1061-1063.
38. Dipti Bharti and **Charu Arora**,Synergistic Effect of Antifungal Activity of Medicinal Plants with Transition Metal Ferrocyanides,Asian J. Research Chem. 4(9): 2011, 1428-1431.
39. **Charu Arora Chugh,** Asmita Sharma, Aditi Sharma, Shalu, Y.P.Naik and G.A. Rama Rao**,** Kinetics and Mechanism of Thermal Decomposition of Uranyl Oxalate, Asian Journal of Chemistry, 23 (4) (2011) 1865.
40. **Charu Arora**, Vaishali, Synergistic effect of antimicrobial constituents of *Vitex negundo* with metal ferrocyanides, Progressive Agriculture: An International Journal, 9(1), 2009, 30-34. IF 3.0 (NAAS rating).
41. **Charu Arora**, Chemical characterization of biocidal components of *Vitex negundo*, in 13th ISMAS WS 2008 (Editors Dr S K Aggarwal, PG Jaison, D Alamelu) Published by Indian Society on Mass Spectrometry, BARC Mumbai-400085, ISBN 978-81-90442-1-7, 2008.
42. **Charu Arora**, R.D. Kaushik A. Kumar and G.K. Garg, Fungicidal potential of Kumaon and Tarai region plants against mushroom fungal pathogens, Allelopathy Journal, 11(1), 2003, 63-70.IF 1.275.
43. **Charu Arora** and R. D. Kaushik, Fungicidal activity of plant extracts from Uttaranchal hills against soybean fungal pathogens, Allelopathy Journal, 11(2), 2003, 217-228.IF 1.275.
44. **Charu Arora** and R. D. Kaushik, Antifungal activity of some transition metal ferrocyanides, Asian J. Chem. 15(3-4), 2003, 1828-1830.
45. R. D. Kaushik, Anil Kumar and **Charu Arora**, Fractionation, characterization and evaluation of biocidal potential of active principles of leaves of *Vitex negundo* Linn., Asian Journal of Chemistry, 15(3), 2003, 1659-1664.
46. R.D. Kaushik, G. K. Garg, Garima Sharma and **Charu Arora**, Antibacterial activity of plant extracts from Uttaranchal Hills, India, Allelopathy Journal, 12(2), 2003, 205-214.IF 1.275.
47. R. D. Kaushik, Garima Sharma and **Charu Arora**, Biocidal potential of leaf extracts of *Vitex negundo* Linn., Allelopathy Journal, 14(2), 2004, 227-234. IF 1.275.
48. **Charu AroraChugh**, Ecofriendly Management of fungal diseases caused by *Colletotrichum truncatum, Fusarium oxysporum* and *Macrophomina phaseolina*, in Proceedings of International Conference on Management, Technology and Environment, Macmillan Publishers India Ltd., New Delhi, 2009, ISBN 10: 0230-32820-2 ISBN 13:978-0230-32820-4.
49. Manish Rana, **Charu Arora**, Basant Ram and Anil Kumar, Floret specificity of Karnal Bunt infection due to presence of fungal growth promontory activity in wheat spikes, J. Plant Biol., 28(3) 2001, 283-290.IF 0.964.
50. R. D. Kaushik and **Charu Arora**, Fungitoxic activity of methanol extracts of some plants of Kumaon, Garhwal and Tarai regions against fungal pathogens of rice, J. Indian Bot. Soc., 81, 2002, 327-331. IF 0.518.
51. R. D. Kaushik and **Charu Arora**, Antifungal activity of aqueous extracts of some economically important plants against *Magnaporthe grisea* and *Rhizoctonia solani*, Indian J. Environ. &Ecoplan., 7(2), 2003, 273-278.
52. **Charu Arora** and R.D. Kaushik, Fungicidal potential of some plants from Uttaranchal Hills against *Alternaria brassicae* and *Aspergillus niger*, J. Curr. Sci. 3(1), 2003, 47-52.
53. R. D. Kaushik, Garima Sharma and **Charu Arora**, Antifungal activity of certain plants against *Alternaria brassicae* and *Aspergillus niger*, Journal of Natural and Physical Sciences, 18(1), 2004, 49-56.
54. R.D. Kaushik, **Charu Arora** and Garima Sharma, Fungicidal potential of aqueous/methanol extracts of some plants against *Mycogoneperniciosa* and *Verticilliumfungicola*, Indian J. Environ. &Ecoplan., 8(1), 2004, 39-42.

**BOOKS**

1. **Charu Arora** and Sumantra Bhattacharya, Advanced Physical Chemistry Practical Guide, Bentham Books, 2022 DOI: [10.2174/97816810891021220101](http://dx.doi.org/10.2174/97816810891021220101), ISBN: 9781681089102

**BOOK CHAPTERS AND OTHER EDITED COMPILATIONS**

1. Charu Arora, “Orienting Higher Education to Environment” in Resource Book of Environmental Education, Academic Excellence, Delhi-110031, ISBN 978-81-89901-36-3, 2008, p 109-122.
2. Charu Arora, “Chemical Characterization of Biocidal Components of *Vitex negundo*” in 13th ISMAS WS 2008 (Editors Dr S K Aggarwal, PG Jaison, D Alamelu) Published by Indian Society on Mass Spectrometry, BARC Mumbai-400085, ISBN 978-81-90442-1-7, 2008, p 196-202.
3. Vital Role of Chemical Science in Modern Agriculture, (Ed. Dr Charu Arora), manuscript under preparation.
4. **Charu Arora Chugh,** Applications and maintenance of HPLC, published in Workshop Course Material of National Workshop on Application and Maintenance of Analytical, Optical and Electrical Instruments, 2009.
5. Charu Arora Chugh, Ecofriendly Management of fungal diseases caused by *Colletotrichum truncatum, Fusarium oxysporum* and *Macrophomina phaseolina,* Recent Trends in Management, Technology and Environment, pp137-141, Macmillan Publishers India Ltd.,New Delhi, 2009, ISBN 10: 0230-32820-2 ISBN 13:978-0230-32820-4.
6. Vinita Tamrakar and Charu Arora, Phytochemical screening of some medicinal flora of central India, in Proceedings of the conference on Skill India Initiative: Challenges, opportunities and strategies, 2016, pp246, Bloomsbury Publishers, ISBN 978-93-85936-11-1
7. Charu Arora Chugh, Bioactive constituents from Indian medicinal plants in proceedings of international conference on innovative approaches in applied sciences and technologies (IC/iSAT- 2016), published by Scientific Educational Research Society, 2016, ISBN 9788188805235,pp60
8. V. Tamrakar, VR Patel, Charu Arora, Phytochemical screening, proximate analysis, and biological activity of Curcuma caesia, Phyllanthus emblica and Chenopodium album, in Proceedings on Recent Trends in Chemical Sciences: Global Prospective and Progress, 2016, pp 109, ISBN 978-93-5265-436-9
9. S. Soni, PK Bajpai, B Singh, C. Arora\*, Adsorptive removal of organic dyes using metal organic frameworks, in Proceedings on Recent Trends in Chemical Sciences: Global Prospective and Progress, 2016,pp 293, ISBN 978-93-5265-436-9
10. Arora C., Arora D., Chatterjee S. and Tamrakar V. (2020) Phenolic content and antioxidant activity of *Chenopodium album* Linn. and *Curcuma caesia* Roxb., in Chemistry Research and Applications: Natural Products and their Utilization Pattern (Eds. G. Tewari, A Tewari, L. M. Tewari and C. Pandey), Nova Science Publishers, Inc, New York, USA, pp 23-42, ISBN 978-1-53618-140-1.
11. Charu Arora, Sumantra Bhattacharya, Sanju Soni, Pathik Maji, [Scanning Electron Microscopy: Theory and Applications](http://books.google.com/books?hl=en&lr=&id=VWr7DwAAQBAJ&oi=fnd&pg=PA117&dq=info:FswUtQjlha4J:scholar.google.com&ots=wHsFhv6aeJ&sig=0E-H08EGBSDH_iEsO27oPYwmpEI) in Essential Techniques for Medical and Life Scientists: A guide to contemporary methods and current applications with the protocols: Part 2 (Ed. Prof Y. Tutar), Bentham Science Publishers, 2020, p 117, DOI:

[10.2174/9789811464867120010009](https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.2174%2F9789811464867120010009?_sg%5B0%5D=RHgG6QBJ6SkjBJQtJPdbZ64rzaG6t-k44N97OlOJSgTduArK61JIC-EiVJKvP6OzE9Z9tO5BI9iSVE0xo0-Fw0npwQ.4VnJl75hTCapl0NhdI_sYMsBMd-jLVpRtezGFaGnzZ1WdhooOXb7hzxErmalcVJxIdqM5adcDBA0bhwHDQbiPA)

1. C Arora, S Soni, P Maji, [Transmission Electron Microscopy: Theory and Applications](https://scholar.google.com/scholar?oi=bibs&cluster=12440560170058738002&btnI=1&hl=en), in - Essential Techniques for Medical and Life Scientists: A guide to contemporary methods and current applications with the protocols: Part 2 (Ed. Prof Y. Tutar), Bentham Science Publishers, 2020, p 96.Doi [10.2174/9789811464867120010008](https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.2174%2F9789811464867120010008?_sg%5B0%5D=T3Tev0-uW_3CFNkElUgIhIVO9L6W4v8ZZZDvgIAjdaDkekYKU05WfLIHic_Q0MzupIbQV-08UysoUEI8_CntoKvy8g.i7qVk8-Kp1Nn4sS-HvDNTsq8Ms7sbo3JKiNHfqswcyPetmkwKzsxDs1TUaTc7OO6nbuk7Q4U6SothB_e_7CwfQ)
2. C Arora, P. Maji and P K Bajpai, [Raman Spectroscopy and Its Biomedical Applications](http://books.google.com/books?hl=en&lr=&id=VWr7DwAAQBAJ&oi=fnd&pg=PA62&dq=info:avcjspivrDMJ:scholar.google.com&ots=wHsFhw_iiI&sig=ydV8jwOQJl7_wn9tCLbfTKvPClY), in Essential Techniques for Medical and Life Scientists: A guide to contemporary methods and current applications with the protocols: Part 2 (Ed. Prof Y. Tutar), Bentham Science Publishers, 2020, p 62.DOI: [10.2174/9789811464867120010006](https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.2174%2F9789811464867120010006?_sg%5B0%5D=06G0Udvz3C7DLov3D2I4qU65fGAxvAvrXSd82n1Od2awoWcZnek1ZpRTnLd-alO7qLR-1fn0GikDatDKnA36dp1UOw.oZa0CS7zhoZBYR_EJDPinKGHkQXb0_bgOAG6Rh7dLeX56GB9hqv4lWCEMjK-ZQlct2IZF6fUlhooXVt0ZWMx0g), ISBN
3. I Ansari, M Sundarrajan, R Kumar, S Sharma and **C Arora**, SEM-EDX: A Potential Tool for Studies of Medicinal Plants in Essential Techniques for Medical and Life Scientists: A guide to contemporary methods and current applications with the protocols: Part 2 (Ed. Prof Y. Tutar), Bentham Science Publishers, UAE, 2020, p124-141.
4. C. Arora, S.Soni, P.K. Bajpai, J. Mittal and A.Mariyam, Dye Removal From Waste Water Using Metal Organic Frameworks, in Management of Contaminants of Emerging Concern (CEC) in Environment (Eds. P. Singh, C.M. Hussain, S. Rajkhowa), Elsevier publishers, 2021,pp 377-394, https://doi.org/10.1016/B978-0-12-822263-8.00014-2
5. I. Ansari, Maha M. El-Kady, Charu Arora, MuniyanSundararajan,DeblinaMaiti, Aarif Khan, A review on the fatal impact of pesticide toxicity on environment and human health, in Global Climate Change (Eds.Suruchi Singh, Pardeep Singh, S. Rangabhashiyam, K.K. Srivastava), Elsevier publishers, 2021, p361.<https://doi.org/10.1016/B978-0-12-822928-6.00017-4>
6. Dipti Bharti, Rahul Singh, Dhruv Arora, Charu Arora\*, Role of phytopesticides in sustainable agriculture in Global Climate Change (Eds.Suruchi Singh, Pardeep Singh, S. Rangabhashiyam, K.K. Srivastava), Elsevier publishers, 2021, p341-360, <https://doi.org/10.1016/B978-0-12-822928-6.00011-3>.
7. **Charu Arora** and Sumantra Bhattacharya, Advanced Physical Chemistry Practical Guide, Bentham Books, 2022 DOI: [10.2174/97816810891021220101](http://dx.doi.org/10.2174/97816810891021220101), ISBN: 9781681089102
8. J. Mittal, C. Arora, A. Mittal, Application of Biochar for the Removal of Methylene Blue from Aquatic Environment” in ‘Biomass-Derived Materials for Environmental Applications’, (Ioannis Anastopoulos Eder Claudio Lima, Dimitrios A. Giannakoudakis and Lucas Meili, (Editors), pp 29-76, 2022, <https://doi.org/10.1016/B978-0-323-91914-2.00010-6>, ELSST158-9780323919142
9. an Iqbal Ansari, Marlia Mohd Hanafiah, Maha M. El-Kady and Charu Arora\* and Sumbul Jahan, Interactions of Microplastics Towards Ecological Risk in Soil Diversity: An Appraisal, Chapter 5, in Plastic and Microplastic in the Environment (Eds. A. Ahamad, P. Singh, D. Tiwari), 2022 Wiley Blackwell Publication, 2022,
10. Partha Dutta, Sanju Soni, Nidhi Rai, Jyoti Mittal, Charu Arora,
11. Charu Arora, Dipti Bharti, Sanju Soni, Asha Patel and Rahul Singh, Adsorptive removal of hazardous dyes from industrial waste using activated carbon: an appraisal, in Waste Management and Resource Recycling in the Developing World" to be published by Elsevier (UK) (Eds. P. Singh, A. Ahmad, P. Verma, R. Singh), (in Press).

**INVITED LECTURES**

1.Applications and maintenance of HPLC in National Workshop on Application and Maintenance of Analytical, Optical and Electrical Instruments, held at Vidya Knowledge Park, Meerut Dec 15-17, 2009.

2. “Teaching Chemistry: Technological Strategies in Classroom” in 12thOrientation Programme Organised by UGC Academic Staff College, Guru Ghasidas University, Bilaspur from 10th November 2014 to 6th December 2014.

3. “Green Chemistry: An Interdisciplinary Approach to Sustainability” in 13th Orientation Programme Organised by UGC Academic Staff College, Guru Ghasidas University, Bilaspur from 12th January 2015 to 08th February 2015.

4. “Green Chemistry: Application in Daily Life” in 13th Orientation Programme Organised by UGC Academic Staff College, Guru Ghasidas University, Bilaspur from 12th January 2015 to 08th February 2015 (presentation on 20.1.2015).

5. “IR Spectroscopy” in Departmental Invited Lecture Series, 19 September 2015, Chemistry Department, Govt. Bilasa Girl’s PG College Bilaspur (CG).

1. “Isolation and characterization of biologically active constituents of some Indian medicinal plants” in International Conference on Innovative Approaches in Applied Sciences and Technologies, Scientific Educational Research Society India and Faculty of Science, Kasetsart University, Bangkok 10900, Thailand during 1-5th Feb 2016.
2. “Role of holistic education in environmental protection” in 16th Orientation ProgrammeOrganised by UGC Human Resource Development Centre, Guru Ghasidas University, Bilaspur on 2nd June 2016.
3. “High Performance Liquid Chromatography: Applications in Interdisciplinary Research” in **Refresher Course on Research Methodology** organized by UGC-Human Resource Development Centre of Guru Ghasidas Vishwavidyalaya, Bilaspur, during 13th June 2016 to 2nd July 2016.
4. “Rapid HPLC Method Development”in**Refresher Course on Research Methodology** organized by UGC-Human Resource Development Centre of Guru Ghasidas Vishwavidyalaya, Bilaspur, during 13th June 2016 to 2nd July 2016.
5. “Application of Chromatographic Techniques in Quality Control”In**Refresher Course on Research Methodology** organized by UGC-Human Resource Development Centre of Guru Ghasidas Vishwavidyalaya, Bilaspur, during 13th June 2016 to 2nd July 2016.
6. *“Gmelina arborea*: a bioprospective plant” in International Conference on Global Initiatives in Applied Sciences and Green Technologies, held at SRM University, Modinagar, Distt Ghaziabad during 9-11 Sept 2016.
7. Role of *Emblica officinalis* in sustainable agriculturein International Conference Global Agriculture & Innovation Conference (GAIC-2016) held at Noida International University, Noida during 27-29 Nov 2016.
8. Invited lecture “Development of low-cost adsorbent from common weeds for removal of hazardous materials” in International Conference on Innovative Approaches in Applied Sciences and Technologies, organized jointly by Nanyang Technological University, Singapore, Scientific Educational Research Society and National University of Singapore during 19-23 June 2017 at Nanyang Technological University, Singapore.
9. Invited Talk in UGC- SAP (DRS-II) 2nd National Conference on Advances in Environmental and Chemical Sciences held at Pt Ravi Shankar Shukla University, Raipur during March 22-23, 2018.
10. Invited lecture titled “Bioactive Constituents of Medicinal Plants for Himalayan Hills: Isolation and Characterization” in National seminar on Indian tribal medicinal plants research: Challenges and Prospects held at Indira Gandhi National Tribal University, Amarkantak, MP during 18-19 April 2018.
11. Invited lecturetitled “Natural Product Chemistry: Separation Techniques-I” in Refresher course on Synthetic and Natural Products: Chemical and Medicinal Aspects held at UGC- HRDC Guru Ghasidas University, Bilaspur during 11th June 2018 to 30th June 2018.
12. Invited lecture titled “Natural Product Chemistry: Separation Techniques-II” in Refresher course on Synthetic and Natural Products: Chemical and Medicinal Aspects held at UGC- HRDC Guru Ghasidas University, Bilaspur from 11th June 2018 to 30th June 2018.
13. Invited lecture titled “Professional Ethics and Value Education” in Refresher course on Synthetic and Natural Products: Chemical and Medicinal Aspects held at UGC- HRDC Guru Ghasidas University, Bilaspur from 11th June 2018 to 30th June 2018.
14. Invited lecture titled “Role of education in environment protection” in 21st Orientation Programme held at UGC- HRDC Guru Ghasidas University, Bilaspur during 4th June 2018 to 30th June 2018.
15. Invited lecture titled “Role of education in holistic development” in Summer School: Research Methodology held at UGC- HRDC Guru Ghasidas University, Bilaspur during 16th June 2018 to 7th July 2018.
16. Invited lecture titled “**Synthesis, characterization and adsorptive removal of toxic organic dye using Iron based metal organic framework**” in XX- National Seminar on Ferroelectrics & Dielectrics held at GGU, Bilaspur during December 14-16, 2018.
17. Invited lecture titled “Radiation Safety” in two days Skill Development Training on Basic Laboratory Skill and Safety Management in Physical Sciences organized by School of Physical Sciences and Skill Development Cell, Guru Ghasidas University during March 12-13, 2019.
18. Invited lecture titled “**Application of Agricultural waste in removal of Industrial pollutants**”UGC- SAP 3rd National Conference on Advances in Environmental and Chemical Sciences held at Pt Ravi Shankar Shukla University, Raipur duringMarch 27-28, 2019.
19. Invited lecture titled “Separation Techniques: Application in Chemistry” in Refresher Course on Recent Advances in Emerging Areas of Engineering, Technical Education and Research, Organised at UGC-HRDC, GGU, Bilaspur on 02.07.2019.
20. Invited lecture titled “Environmental applications of nanoporous materials” in National Webinaron “Emerging Trends and Technology in Chemistry” at Govt. S.S.P. College Waraseoni,Balaghat, on 24 Dec. 2020.
21. Invited lecture titled “Green Chemistry Principles” in webinar titled “Green Chemistry: A Sustainable Development” at KarmaveerBhaurao Patil College, Vashi, Mumbai, on 5th Feb. 2021
22. Invited lecture titled “Advances in Chemical Separation: High Performance Liquid Chromatography” in National Webinar on Recent Trends in Chemistry held at Govt. J. S. T. P.G. College, Balaghat, MP, 31st March 2021.
23. Invited Lecture titled “**Industrial and Environmental Applications of Metal Organic Frameworks”** at International Web Conference on Emerging Fields in Chemistry: Advances and Applications” held on 10-11 Aug 2021 at Govt. Kamladevi Rathi Girls P. G. College, Rajnandgaon (C. G.), India,491441.

**PAPERS PRESENTED IN INTERNATIONAL CONFERENCES**

1. Paper titled “Effect of gamma radiation on extractability of essential oil constituents and antibacterial activity of *Curcuma caesia*Roxb. collected from Odisha” in International e-conference on “Developments in Chemical, Biological and Environmental Sciences” held at GITAM University, Bengaluru on 28-29 June 2021.
2. Paper titled “Enhanced removal of methylene blue from waste water using cobalt doped iron-based MOF” in International e-conference on Science and Technology for betterment of health, environment and energy held at GITAM University, Bengaluru on 1-3 Dec 2020.
3. Paper titled “Mechanism of Adsorption of methylene blue on iron-based metal organic framework” in 24th International Conference of International Academy of Physical Sciences on Innovations in Physical Sciences held at Chaudhary Charan Singh University, Meerut-250004 during 9th to 11th August 2019.
4. Paper Titled “Bioactive constituents from Medicinal Plants of Kumaon and Tarai Area” in International Conference Techno- A- Tech 2018 on Engineering, Science and Technology: Ideas, Innovations and Initiatives held at Chouksey Engineering College, Bilaspur, CG during 26-27 Oct 2018.
5. Paper titled “Gmelina arborea: applications in Ayurveda” in International Conference on Bharat Rejuvenation ICBR 2017 held at GGU Bilaspur during 15-17 October 2017.
6. Charu Arora, Application of thermogravimetry to study the mechanism of reaction between alkaline earth metal oxalate and uranyl oxalate,International Conference Recent Advances in Analytical Science held at Department of Chemistry, IIT BHUDepartment of Chemistry, Indian Institute of Technology, BHU, 7-9 April 2016.
7. **Charu Arora**,Diversity of chemical constituents and biological activity in *Emblica officinalis* at different sources: Application of HPLC as analytical tool in International Conference Recent Advances in Analytical Science held at Department of Chemistry, IIT BHU, Varanasi, UP, India during 27-29th March 2014.
8. **Charu Arora**, Study of solid-state reaction of barium oxalate with uranyl oxalate applying TG as analytical tool**,**International Conference Recent Advances in Analytical Science held at Department of Chemistry, IIT BHU, Varanasi, UP, India during 27-29th March 2014.
9. **Charu Arora Chugh,**Chemical Characterization of Antifungal Constituents of*Emblica officinalis****,*** International Conference on Global IPR system and WTO issues, held at CCS University Campus, Meerut, UP during 16-17November 2013.
10. **Charu Arora Chugh**and Dipti Bharti, Antimicrobial Potential of Transition Metal Hexacyanoferrates, International Conference on Global Trends in Pure and Applied Chemical Sciences, 3-4 March 2012, Udaipur, Rajasthan, India.
11. Madhu Vats, Dipti Bharti, R. C. Thakur, Charu Arora Chugh,Effect of Automobile Fuel Emission on Protein Level in the Lower Half Leaves of Roadside Plants around the Selected Junction of National Highway-58 (India), International Conference on Global Trends in Pure and Applied Chemical Sciences, 3-4 March 2012, Udaipur, Rajasthan, India.
12. Charu Arora Chugh, Sanjeev Mehta and Heena Dua, Phytochemical Screening and Evaluation of Biological Activities of some Medicinal Plants of Phagwara, Punjab,International Conference on Global Trends in Pure and Applied Chemical Sciences, 3-4 March 2012, Udaipur, Rajasthan, India.
13. **Charu Arora Chugh**, Shailendra Godial, Prashant, R. D. Tewari, Effect of variation in geographical and climatic conditions on properties and flavonoid content of *Emblica officinalis*, 5thInternational Congress of Chemistry and Environment, held at Port Dickson, Malaysia, 27-29 May 2011.
14. **Charu Arora Chugh** and Dipti Bharti, **Biocidal Potential and Phytochemical Screening of Some Medicinal Plants** 5thInternational Congress of Chemistry and Environment, held at Port Dickson, Malaysia, 27-29 May 2011. (**Got Best Paper Award**)
15. **Charu Arora Chugh,** Development of Ecofriendly Biopesticides for Management of *Alternaria brassicae* and *Aspergillus niger*, 4th International Congress of Chemistry and Environment, held at Ubonratchathani, Thailand, 21-23 January 2010.
16. **Charu Arora Chugh**and Dipti Bharti, Sustainable Management of Fungal Diseases of Potato, 4th International Congress of Chemistry and Environment, held at Ubonratchathani, Thailand, 21-23 January 2010.
17. Madhu Vats **and Charu Arora Chugh,** Effect of Automobile Fuel Emission on Protein Level in the lower half leaves of roadside plants around the Selected Junctions of National Highway-58 (India), 4th International Congress of Chemistry and Environment, held at Ubonratchathani, Thailand, 21-23 January 2010.
18. V. Lamba, S. J. Engles, **C. Arora** and D. Engles, Modeling of bond-length alteration for designing molecular devices in **"Integrating Nanomaterials in Formulations" – NanoFormulation 2010** held on June 9-11, 2010 at Stockholm, Sweden.
19. **Charu AroraChugh**, Ecofriendly Management of fungal diseases caused by *Colletotrichum truncatum, Fusarium oxysporum*and*Macrophominaphaseolina*, International Conference on Recent Trends in Management, Technology and Environment held at SD College of Engineering and Technology, Muzaffarnagar, UP, India, 28-29 Nov. 2009.
20. AjitaBanthiya, YP Naik, GA Ramarao, Dipti Bharti and **Charu Arora Chugh**, Mechanistic approach to the study of solid-state reaction involved in synthesis of nano structured Th0.9Ce0.1O2, International Conference on Recent Trends in Management, Technology and Environment held at SD College of Engineering and Technology, Muzaffarnagar, UP, India, 28-29 Nov. 2009.
21. **Charu Arora**, AjitaBanthiya, Deepika, YP Naik, GA Ramarao and BK Sen, Synthesis and characterization of nano-structured Th1-xCexO2 mixed oxide powders, International Conference-cum-workshop on Nanoscience and Nanotechnology, held at Ansal Institute of Technology, Gurgaon, 12-16 Oct 2009.
22. Y P Naik, N. K. Gupta, G.A. Rama Rao and B.K. Sen, Asmita Sharma, Shalu, Aditi Sharma and **Charu Arora**, Mechanistic approach to the study solid state reaction of calcium oxalate with uranyl oxalate using thermogravimetry, in International Conference on Frontiers in Chemical Research (ICFCR2008), Department of Chemistry, Mangalore University, Mangalore, Karnataka, held on 29 Dec 2008-31 Dec 2008.
23. **Charu Arora**, Chemical characterization of biocidal components of *Vitex negundo*, in 13th ISMAS Symposium cum Workshop on Mass Spectrometry Jan 27-31,2008, Bhabha Atomic Research Centre, Mumbai-400085.
24. R.D. Kaushik and **Charu Arora**, Biocidal potential of leaf extracts of *Vitex negundo* L., IV International Congress Allelopathy in Sustainable Terrestrial and Aquatic Ecosystem, held at C.C.S. Haryana Agricultural University, Hisar, Aug. 23-25, 2004.
25. **Charu Arora**, Devendra Kumar Rana and B. P. Singh, Antifungal potential of medicinal plants of India against *Phytophthora infestans*, A-52, Conference on Processing and Export Potential of Potatoes within Asia, Central Potato Research Institute Campus, Modipuram, Meerut, 10th March 2003.
26. **Charu Arora**, A. Kumar, Suresh Singh, B.D. Lakhchaura and G.K. Garg, Fractionation and purification of botanical pesticides for economically important fungal pathogens of rice, Biopesticide Conference: Biopesticides Emerging Trends BET held at Chandigarh, 2001.

**PAPERS PRESENTED IN NATIONAL CONFERENCES**

1. Paper titled “Extraction methods of biologically active phytoconstiuents” in National Seminar on Innovative Techniques in Scientific Research and Skill Development held at Department of Chemistry, Meerut College, Meerut, sponsored by UGC, during 28-29 Jan 2018.
2. Charu Arora, Sanju Soni and P K Bajpai, Evaluation of Metal Organic Frameworks for removal of organic dyes in National Conference on Science and Technology for National Development held at Department of Chemistry, Gurukul Kangri Vishwavidyalaya, Haridwar during 20-22 Nov, 2016.
3. Charu Arora, Phytochemical Investigation and Antibacterial Potential of *Gmelina arborea,* presented at,National Conference on Science and Technology for Indigenous Development in India, organized by Indian Science Congress, held at Gurukul Kangri University, Haridwar during 28-30 September 2015.
4. Charu Arora and Vinita Tamrakar, Phytochemical screening of medicinal plants of Chhattisgarh, presented at National Conference on Science and Technology for Human Development, organized by Indian Science Congress Association: Haridwar Chapter held at Gurukul Kangri University, Haridwar during 20-21 March 2015.
5. Charu Arora, Mechanistic approach to solid state reaction of uranyl oxalate with barium oxalate presented at Indian Science Congress Association: Haridwar Chapter held at Gurukul Kangri University, Haridwar during 20-21 March 2015.
6. Charu Arora Chugh, Mechanistic approach to solid state reaction between uranyl oxalate and calcium oxalate: Application of TG as Analytical Tool in Symposium on Application of Thermal Analysis and Calorimetry in 33rd Annual National Conference of Indian Council of Chemists held at Indian School of Mines, Dhanbad on 15th-17th December, 2014.
7. Charu Arora Chugh, Development of ecofriendly......potato, National Symposium on Advances in Biotechnological Research in Agri-Horti Crops for Sustaining Production, Quality Improvement and Food Security, Sardar Vallabh Bhai Patel University of Agriculture and Technology , Meerut, 14-16 September 2011.
8. Charu Arora, Synthesis and characterization of nano-structured Th1-xCexO2 mixed oxide, 29th Conference of Indian Council of Chemists, held at Panjab University, Chandigarh, 21-23 Dec 2010.
9. Charu Arora, Dipti Bharti, and Shailendra Godial,Biocidal Potential and Phytochemical Screening of Medicinal Plants of Northern India, National symposium on Advanced FunctionalMaterials: Opportunities and Challenges in New Global Era, 4-5 Oct 2010.
10. **Charu Arora Chugh**, Antifungal potential of plants from northern India against fungal pathogens causing scurf and wilt of potato, in RECENT ASPECTS OF BIOLOGICAL AND MEDICINAL CHEMISTRY, RABMC-2010 held at Lajpat Rai Postgraduate College, Sahibabad (Ghaziabad) during 20-21 Feb. 2010.
11. Dipti Bharti and **Charu Arora**, Fungicidal potential of transition metal complexes against pathogens of potato, Ist Indian Agricultural Scientist and Farmer’s Congress on Technological Innovations for Enhancing Agriculture Production, Chaudhary Charan Singh University, Meerut, held on Oct 3-4, 2009. (**Got Best Paper Award)**
12. **Charu Arora**, Biocidal potential of plant extracts from Himalayan hills and tarai area against fungal pathogens of soybean, 4th National Symposium on Scenario of Agriculture in Changing Climatic Conditions, held at S.V.B.P. University of Agriculture and Technology, Meerut, 18-19 Oct. 2008.
13. **Charu Arora,** Contribution of Women Scientists in Science and Technology, in Jubilee Conference on Women’s Education: Vision and Mission of Women’s Universities in a Global Society, Banasthali University, 11-13 Nov. 2008.
14. **Charu Arora** and R D Kaushik, Biocidal potential of Transition Metal hexacyanoferrates, in 27th ANNUAL CONFERENCE Indian council of chemistS, held at Gurukul Kangri University, Haridwar, 26-28th Dec. 2008.
15. Aditi Sharma, Asmita, Shalu, Y P Naik, G.A Ramarao, and **Charu Arora**, Study of Solid-State Reaction between Strontium Oxalate and Uranyl Oxalate by Thermogravimetry, in 27th ANNUAL CONFERENCE Indian council of chemistS, held at Gurukul Kangri University, Haridwar, 26-28th Dec. 2008.
16. **Charu Arora**, Synergistic effect of transition metal ferrocyanides with active constituents of *Vitex negundo*, in Third National Conference on Recent Trends in Agriculture, C C S University, Meerut Nov. 27-28, 2007.
17. **Charu Arora**, Suresh Singh and G.K.Garg, Biocidal activity from plants of Kumaon, Garhwal and Tarai areas against mushroom fungal pathogens, National Symposium on Biotechnology for Sustainability in Agriculture, held at Department of Molecular Biology and Genetic Engineering and Biochemistry, G.B.Pant University of Agriculture and Technology, Pantnagar, India, April 27-29, 2000.
18. **Charu Arora** and Kamaluddin, Interaction of Bovine Albumin with metal ferrocynides, P-63, Symposium on Recent Trends in Instrumental Methods of Analysis, held at Department of Chemistry, University of Roorkee, Roorkee, Sept. 18-20, 1997,p54.

**CONFERENCES/WORKSHOP/TRAINING ORGANISED**

1. National Workshop on Maintenance of Analytical, Electrical and Optical Instruments, Organised at VidyaKnowledgePark, Meerut in the capacity of Organising Secretary on 15-17 Dec 2009.

2. Member, Technical Advisory Committee in Second National Conference EDCT 2010 held on 14-15 May 2010 at Haryana College of Technology and Management (KurukshetraUniversity) Kaithal.

3. Joint Organising Secretary of National Congress on Emerging Trends in Agricultural Research held on 11-12 September 2010 at Project Directorate for Farming System Research, Modipuram, Meerut.

4. Organised Summer Training on “Kinetics study of Uranyl Oxalate with some Alkaline Earth Metal Oxalates” at BARC, Mumbai, 15 May 2008-30 June 2008.

5. National Workshop on Nuclear Chemistry and Applications of Radioisotopes held at Guru Ghasidas University, Bilaspur in collaboration with IANCAS, BARC and BRNS, Mumbai, during 7th to 12th Aug 2017.

6. Refresher course on **Refresher Course on Research Methodology**asco-coordinatororganized by UGC-Human Resource Development Centre of Guru Ghasidas Vishwavidyalaya, Bilaspur, during 13th June 2016 to 2nd July 2016.

7. OrganisedRefresher course on Synthetic and Natural Products: Chemical and Medicinal Aspects as Coordinator at UGC- HRDC Guru Ghasidas University, Bilaspur from 11th June 2018 to 30th June 2018.

8. Organised National Webinar “Recent Advancements in Chemical and Environmental Sciences and Technology (RACEST-2020) Nov 23-24, 2020 in the capacity of Organising Secretary at Department of Chemistry, Guru Ghasidas University, Bilaspur Jointly with Bhabha Atomic Research Centre, Mumbai.

**Workshop/ Training Attended**

1Participated in 37th National Workshop on Nuclear Chemistry and Applications of Radioisotopes (conducted by BARC and BRNS, Mumbai), held at G B Pant University of Agriculture and Technology, Pantnagar, 24th March to 1st April 2000.

2 Attended “Training for Trainers” conducted at M.P.S.P.S. College of Commerce and Science, Bandra(E), Mumbai, September 2004-March 2005.

3 Attended Jubilee Workshop on “Promoting Science &Technology amongst Women: Funding Schemes & Research Priorities for Women in Scientific Disciplines”, conducted by DST at Banasthali University, Rajasthan, 31 January 2009.

4 Organised National Workshop on “Maintenance and Application of Analytical, Optical and Electrical Instruments” at Vidya Knowledge Park, 15-17 Dec. 2009.

5 Jubilee Workshop on Vision and Mission of Women’s Universities: A Global Scenario, Banasthali University, Nov 2008

6 2nd International Winter School for Graduates (IWSG 2009), Academic Session and Hands-On training held at IIT Bombay, Mumbai 30 Nov 2009 to 5 Dec 2009.

7 National Workshop on Maintenance of Analytical, Electrical and Optical Instruments, Organised at Vidya Knowledge Park, Meerut in the capacity of Organising Secretary 15 Dec 2009 to 17 Dec 2009

8 Faculty Development Programme on Molecules at L.P. University, Punjab 11 July 2011 to 15 July 2011.

9 7th INUP Familiarization Workshop on Nanofabrication Technologies, held at IIT Bombay, Mumbai 4th June 2012 to 5th June 2012

10` 9th International Workshop on Nanomechanical Sensing 2012,held at IIT Bombay,6th June 2012 to 8th June 2012.

11 Workshop on Nanochemistry1-2 March 2013, Department of Chemistry, Jamia Millia Islamia, Delhi.

12 Workshop on Universal Human Values and Professional Ethics, Suraj Group of Institution, Gautam Budha Technical University, Lucknow, 29th July 2013 to 5th August 2013.

13 ProvenStrategiesofEffectiveTeachingOrganisedbyGalgotiasUniversity, atStreller Gymkhana, Greater Noida, 29th August 2013 to 31st August 2013.

14 Lecture Workshop on Supramolecular Assemblies organised by Department of Chemistry, Guru Ghasidas University, Bilaspur, on 21-22 August 2015.

15 Short Term Course on Green Chemistry and Nanotechnology held at Human Resource Development Centre, Guru Ghasidas Vishwavidyalaya, Bilaspur (C. G.) during 23-11-15 to 28-11-15.

Place: Bilaspur Dr Charu Arora

Date: 20.04.22