CURRICULUM VITAE

Dr. Sarita Khaturia, Associate Professor Mobile No: 7737075719

E-mail: [saritakhaturia.slas@modyuniversity.ac.in](mailto:saritakhaturia.slas@modyuniversity.ac.in)

[saritarajkhatri@gmail.com](mailto:saritarajkhatri@gmail.com)

<https://orcid.org/0000-0001-9016-6239>

[Scopus Author ID: 8380058200](http://www.scopus.com/inward/authorDetails.url?authorID=8380058200&partnerID=MN8TOARS)

Mody University of Science and Technology. Lakshmangarh 332311, Distt.

Sikar Rajasthan, India



Objective

To perform a responsible and challenging job in a reputed organization, where my acquired experience and skills get utilized to my full potential, and find a quality environment where my knowledge and skills can be shared and enriched to improve and grow.

Educational Qualification

Ph.D, M.Sc., M.Phil., CSIR-NET, GATE (96%), DRDO (SET) Qualified

Experience Summary

Teaching Experience: 15 Years

* **Working as Assistant Professor (Chemistry) at Mody University of Science and Technology, Lakshmangarh, Sikar, Rajasthan from 8 Aug 2010 to current date.**
* **Worked as Lecturer (Chemistry) at Amity University, Jaipur from 20/ 02/2009 to06/08/2010.**
* **Worked as Lecturer (Chemistry) at MD Mission College, Kota from 01/07/2007 to31/01/2009.**

Research Experience:

* **Four Years in CSIR MAJOR RESEARCH PROJECT ( 2 years as JRF)**
* **22 years till date**

Research Areas

Green and Heterocyclic Chemistry/Synthetic Organic Chemistry/ Nanotechnology. Title of Ph.D: Environ-economic reaction procedures for heterocyclic synthesis.

Title of M.Phil –Dissertation: Micellar spectrophotometeric determination of cobalt in thesamples of alloyes and vitamins with the use of a novel reagent N-(2’-thiazolyl)- 2-hydroxy benzamide.

|  |  |
| --- | --- |
| **Project and Grant** | **1. CURIE Grant of 3-crore received in SLAS, Mody University of science and Technology, December 2022.**  **2. Co-Principal Investigator in Collaborative Research Scheme-TEQIP-III (AICTE- TEQIP) 10,97,000/-**  Projects ongoing: 1. Mody University Seed Money Research Grant: Received funding of Rs 2,91,000/- for research proposal titled “  “Synthesis of New Medicinally Important Heterocyclic Compounds and Their Metal complexes”  Project sanctioned in 2020-2021 and is active till the end of FY 2021-22. Research work is ongoing. 2. Mody University Seed Money Research Grant: Received funding of Rs 2,20,000/- for research proposal titled “  Plant Extract Mediated Synthesis fo Various nanoparticles and their Applications  Project sanctioned on 2019-2020 is completed |
| **Research Scholars (Awarded/Pursuing)** | 1. **Ms. Sangeeta (Awarded)** 2. **Ms. Saloni Sahal (Pursuing)** 3. **Ms. Renu Bishnoi(Pursuing)** 4. **Ms. Garima Choudhary(Pursuing)** |
| **Student Achievements** | **Supervised**  **11 M.Sc. dissertations, and10 B.Sc. dissertations** |

Patent: EAR MEDICATION-DELIVERY DEVICES, Design No. : 372510-001, Date : 13/10/2022

Administrate Work/ Others (if any):

* Edited book: Futuristic Trends in Chemical, Material Sciences & Nano Technology, 2022  
  ISBN: 978-93-95632-67-6 IIP Proceedings, Volume 2, Book 13, Part 2
* Institute of scholar, InSc Id: InSc2021123A2 Lifetime member
* Association of Chemistry Teachers (Life member No. 1468) since 11-4-2014
* Reviewed Five chapters of Engg.Chemistry book O.G. Palama Tata Mc.Graw Hill McGraw-Hill Education Special Advisor.
* External Examiner in Deptt. of chemistry S.K Govt. College Sikar, Vinayak College, Fatehpur, PDSU Sikar.
* Laboratory In charge of Engg, CET, Mody University. Examination Secrecy, CET 2012-2015
* Convener of “Tatva” Chemical Society
* Coordinator of M.Sc. and B.Sc. Project dissertation

**Reviewer**

* **Environmental Progress & Sustainable Energy,**
* **Interdisciplinary Perspectives on Infectious Diseases, Hindawi,**
* **ICFMST-2022 Chandigarh**
* **TATA Mc Graw Hill, Palana Engineering Chemistry Book**

**Ph. D. supervised: 1   
 Dr. Sangeeta, Ph D (June 2022): Environment-friendly methods for the synthesis of biodynamic heterocycles**

Papers Published in Journals/Conferences/Workshops

1. **Sustainable synthesis of benzopyranderivativescatalyzed by MgO nanoparticles: Spectral, DFT and TEM analysis, Results in Chemistry Available online 9 March 2023, 100884 https://doi.org/10.1016/j.rechem.2023.100884**
2. **Synthesis of coordination compounds of dibutyltin (IV) with Schiff bases having nitrogen donor atoms. February 2023 Journal of the Indian Chemical Society DOI: 10.1016/j.jics.2023.100945**
3. **Oxygen‑ and Sulphur‑Containing Heterocyclic Compounds as Potential Anticancer Agents. Applied Biochemistry and Biotechnology 1-30, July 2022; https://doi.org/10.1007/s12010-022-04099-w**
4. **A Review and Comparative Analysis of Different Types Of Dyes For Applications In Dye-Sensitized Solar Cells. *Brazilian Journal of Physics*, *52*(4), 1-23, (2022).**
5. **New Complexes of organotin(IV) and organosilicon(IV) with 2-{(3,4-dimethoxyb enzylidene)amino}-benzenethiol: Synthesis, spectral, theoretical, antibacterial, docking studies.** **Journal of Molecular Structure (Elsevier) 1261 (2022) 132812**
6. **Greener synthesis of pyranopyrazole derivatives catalyzed by CaO nanoparticles RASĀYAN Journal of Chemistry Vol.15, No.1, 2022**
7. **Green synthesis of dihydropyrimidinone derivatives using feo nano catalysts, Journal of Huazhong University of Science and Technology 2021, Vol. 50, 8, 1-11.**
8. **Synthesis of New Schiff Base of 1,3-Oxazine and 1,3-Thiazine Derivatives Derived from 4-Phenyl Substituted Chalcones and Evaluation of their Antibacterial Activity. Asian Journal of Chemistry (International peer reviewed Journal). Vol. 33, No.3 (2021), 531-536**
9. **"Solar based hybrid renewable energy plants" Research article in WEENTECH proceedings in energy, 2021, vol. 7(1), pp 49-65**
10. **Design, spectroscopic characterization and theoretical studies of organotin(IV) and Organosilicon (IV) complexes with Shiff base ligands derived from amino acids, Asian Journal of Chemistry (International peer reviewed Journal). Vol. 32, No. 11 (2020), 2821-2828**
11. **The Uses of Various Nanoparticles in Organic Synthesis: A Review. Journal ofNanomedicine & Nanotechnology. 2020, Vol.11 Iss. 2 No: 543**
12. **Synthesis of *N*-Containing Energy Material Compounds. Journal of Applicable Chemistry. 2019, 8 (4): 1711-1715, ISSN: 2278-1862 (International Peer Reviewed Journal)**
13. **A Mini-Review on organic Synthesis in Water.” MOJ Biorg Org Chem., Review Article Vol.2, Issue-1, 2017 Published on December 13, 2017**
14. **Green Route for Efficient Synthesis of Novel Amino Acid Schiff Bases as Potent Antibacterial and Antifungal Agents and Evaluation of Cytotoxic Effects. January 2014 ·Journal of Chemistry 1.727 IF 01/2014; 2014: Article ID 848543, 12 pages. DOI:10.1155/2014/848543.**
15. **NiO nanoparticles: an efficient catalyst for the multicomponent one-pot synthesis of novelspiro and condensed indole derivatives. Journal of Chemistry. 1.727 IF Volume 2013, Article ID 606259, 10 pages. Hindawi Publishing Corporation, New York, NY 10022, USA. ISSN 2090-9063 e-ISSN 2090-9071.**
16. **Environ-Economic Synthesis and Characterization of Some New 1,2,4-Triazole Derivatives as Organic Fluorescent Materials and Potent Fungicidal Agents. Article *in* Organic Chemistry International IF 2013(10) · May 2013. DOI: 10.1155/2013/659107**
17. **Synthesis, anti-inflammatory activity, and QSAR study of some Schiff bases derived from5-mercapto-3-(4′-pyridyl)-4H-1,2,4-triazol-4-yl- thiosemicarbazide.Article *in* Medicinal Chemistry Research 1.720IF 22(10), October 2013. DOI: 10.1007/s00044-013-0507-6**
18. **Comparative studies of lewis acidity of alkyl-tin chlorides in multicomponent biginelli condensation using grindstone chemistry technique. Article *in* Journal of the ChileanChemical Society IF 0.580 57(1):1012-1016, March 2012. DOI:**

10.4067/S0717- 97072012000100013

1. **Operationally simple green synthesis of some Schiff bases using grinding chemistry technique and evaluation of antimicrobial activities. Article *in* Green Processing andSynthesis IF 1.100 1(5) · October 2012. DOI: 10.1515/gps-2012- 0043**
2. **Green Chemical Synthesis of Amino-Acid Schiff Bases Incorporating Oxindole and 1,3,4-Thiadiazole Moieties. Chem. News Letter, IF 2012, VOL.1, NO.1, page 97-102, ISSN 2278-6201**
3. **HgCl2 promoted one pot synthesis of 3, 4-dihydropyrimidin-2 (1*H*)*-*ones and thiones under solvent free conditions. Heterocyclic Letters IF 3.833 Published by Raman Publications Vol. 1: (4), 2011, 297-304. ISSN: 2231 – 3087(print) / 2230 – 9632 (Online).**
4. **Aqua mediated facile synthesis of 2-(5/7-fluorinated-2-oxoindolin-3-ylidene)-N- (4- substituted phenyl) hydrazine carbothioamides. Article *in* Research Journal of Pharmaceutical, Biological and Chemical Sciences IF 0.35 2(2):213-219. April 2011**
5. **Microwave-induced preparation of biologically important benzothiazolo [2, 3-b] quinazolines, and comparison with ultrasonic and classical heating Monatshefte für Chemie141(9), 979–985, 2010**
6. **Statement of a methodology for the microwave induced preparation of biologically important benzothizolo [2, 3-b] quinazolines and its comparison with ultrasonic and classical heating. 2008, 1-30, 12th International Electronic Conference on Synthetic Organic Chemistry ECSOC-12** [**http://www.**](http://www/) **usc. es/congresos/ecsoc/11/ECSOC11. htm**
7. **Efficient microwave enhanced solvent-free synthesis of potent antifungal agents; Fluorinated benzothiazepine fused beta lactam derivatives. J. Fluorine Chem., IF 2.055128, 524-529, 2007 [Impact factor: 1.993].**
8. **One pot three-component condensation reaction in water: An efficient and improved procedure for the synthesis of Pyrimido[2,1-b] benzothiazoles.” Phosphorus, Sulfur andSilicon, IF 0.781 182(11), 2529-2539, 2007 [Impact factor: 0.424].**
9. **Microwave Enhanced Solid Support Synthesis ofFluorine Containing Benzopyrano- triazolo-thiadiazepines as Potent Antifungal Agents, Bioorganic & Medicinal Chemistry,IF 2.802 14, 1303-1308, 2006. [Impact factor: 2.686].**
10. **Efficient Microwave Enhanced Regioselective Synthesis of a Series of Benzimidazolyl/triazolyl Spiro (indole-thiazolidinones) as Potent Antifungal Agents and Crystal Structure of Spiro[3H-indole-3,2'-thiazolidine]-3'(1,2,4-triazol-3-yl)- 2,4'(1H)- dione, Bioorganic & Medicinal Chemistry, IF 2.802 14, 2409-2417, 2006. [Impact factor:2.686].**
11. **Mild and ecofriendly tandem synthesis of 1,2,4-triazolo[4,3-a]pyrimidines in aqueousmedium, Arkivoc, IF 1.253 XVI, 83- 92, 2006. [Impact factor:0.418].**
12. **Multi-Component One-pot Diastereoselective Synthesis of Biologically Important Scaffold Under Microwaves, Chinese Journal of Chemistry, IF 2.736 23, 1-10, 2006.[Impact factor: 0.768].**
13. **Facile one pot microwave enhanced multistep synthesis of biologically important scaffoldspiro[indole-pyridopyrimidines], Arkivoc, IF 1.253 XIII, 80-88, 2005. [Impact factor: 0.418].**
14. **Solid phase extraction and determination of Ni ions in samples of steel and hydrogenated oils using modified cellulose, Asian Journal of Chemistry IF 0.31, *15(2)*,**

2003, 1029-1032.

1. **Micellar spectrophotometric determination of cobalt in the sample of alloys and vitamins with N- (2’-thiazolyl)-2-hydroxybenzamide, Asian Journal of Chemistry, IF 0.31, *15(2)*, 2003, 1193-1195.**

Invited lectures / resource person/ paper presentation in seminars/conferences/full paper in conference proceedings:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Type of event** | **Topic** | **Organized by** | **Held on** |
|  | **Attended National Webinar** | **Intellectual Property Rights Awareness** | **SLAS, Mody University of Science and Technology** | **November 23, 2022** |
| **1** | **Attended Faculty Development Program** | **Ethics, Communication and Important Essentials in Teaching,** | **SLAS, Mody University of Science and Technology** | **June 18, 2022** |
| **2** | **Organized ACT promoted, IUPAC Global Women’s**  **Breakfast GWB 2022** | **Women empowerment: Role in Science and Technology** | **Department of Chemistry, in collaboration with the Association of**  **Chemistry Teachers, c/o Homi Bhabha Centre for Science Education, TIFR, Mumbai** | **Feb 16, 20**  **22** |
| **3** | **International webinar on** | **REAXYS: A tool for Literature Search and Retrosynthesis of**  **Chemicals and Pharmaceuticals** | **Amity School of Engineering and**  **Technology, Amity University Madhya Pradesh, Gwalior** | **26 February 2022.** |
| **4** | **International webinar on** | **Mendeley Training Certification of Achievement** | **Amity University, Gwalior** | **5 Feb. 2022** |
| **5** | **International Virtual Conference on Chemical Sciences IVCCS-2022** | **Chemical Sciences IVCCS-2022** | **IQAC Cell, Deptt. of Chemistry, Annai Violet Arts and science college, Chennai** | **8-9 Feb. 2022** |
| **6** | **Virtual National Seminar**  **On** | **“Recent Trends in Chemical Technology**  **A Safety Perspective”** | **Department of Industrial Chemistry, ISTAR,CVM University,**  **Vallabh Vidyanagar & GUJCOST, DST, Government of Gujarat** | **24th December 2021** |
| **7** | **International webinar on** | **Recent trends in Computational chemistry** | **CRSI, Deptt. of Chemistry, Anurag**  **University, Hyderabad, India** | **12 November**  **2021** |
| **8** | **International webinar on** | **Nuclear Energy and Sustainable Development** | **Department of Mechanical Engineering , Mody University of Science**  **and Technology** | **21 August 2021** |
| **9** | **International webinar on** | **Smart manufacturing and Industrial internet of things (IIoT)** | **Department of Mechanical Engineering , Mody University of Science**  **and Technology** | **28 August 2021** |
| **10** | **Invited speaker and delivered a talk**  **on Recent Trends in Nutraceuticals Research** | **Five Days National Webinar Series on ‘Chemistry**  **for Society, Environment & Betterment’** | **organized by Department of Basic & Applied Sciences, School of**  **Engineering & Sciences, G D Goenka University, Gurugram,**  **Hayana (India)** | **19-23 JULY,**  **2021** |
| **11** | **International webinar on** | **Ethics in Scientific Publications** | **IQAC Cell, Mody University of Science and Technology** | **July 13, 2021** |
| **12** | **International webinar on** | **Advancements in Chemical Sciences :Research Prospects and Career Options** | **Organized by Deptt. of Applied Chemistry, Karunya Institute of Technology and**  **Sciences, Coimbatore** | **17th June 2021** |
| **13** | **National webinar on** | **Challenges and Opportunities in the Chemical Industries** | **Organized by Deptt. of Applied Chemistry, Karunya Institute of Technology and**  **Sciences, Coimbatore** | **10th June 2021** |
| **14** | **Attended a Virtual event on** | **Discover Permaculture** | **Organized by UCMA and St. Joseph’s**  **college, Bengaluru** | **5th June 2021** |
| **15** | **Conservation and Restoration Conference** | **Sustainable Development Goals and India** | **Organized by St. Joseph’s college in association with UCM Bengaluru** | **23 May 2021** |
| **16** | **International webinar on** | **“Evolutionary Learning and its Engineering Applications”** | **Organized by**  **IEEE Student Branch- GSSS Institute of Engineering and Technology for Women, Mysuru in Association with IEEE Mysore**  **Sub Section and IEEE Bangalore Section** | **21st May 2021** |
| **17** | **One Week Online National Faculty Development Program** | **E-Contents and ICT Tools for Innovative Teaching & Learning ”** | **Organized by RCP, Roorkee** | **1 May to 7**  **May, 2021** |
| **18** | **One Day Webinar** | **"Restoring the Earth"** | **Organized by IQAC and Department of Environmental Science SIES (Nerul) College of Arts, Science and**  **Commerce** | **April 22, 2021** |
| **19** | **Completed the short term training programme throughICT**  **mode on** | **Design and development ofcontent for e-learning** | **National Institute of Technical Teachers Training and Research Kolkata** | **2 Week STTP**  **5-10-20 to 16-**  **10-20** |
| **20** | **Completed 5 days International E- Certification**  **course 2020 on** | **Novel Exploration inResearch Writing** | **PSNA, College of Engineering and Technology,Dindigul- 624622** | **12-10-20 to16-10-20** |
| **21** | **Attended Virtual Panel Discussion**  **On** | **"National Education Policy---in India" organized by** | **IEEE PES-IAS Delhi**  **chapter,IEEE Chandigarh** | **30-Sep-20** |
| **22** | **Presented Paper on application of nanomaterialin** | **First International virtual conference on nanomaterials FIVCON- 2020** | **Deptt of nanotechnology, Acharya Nagarjuna**  **University, Guntur, AndhraPradesh** | **10-12**  **September2020** |
| **23** | **Completed one Week STTP through ICT**  **mode** | **Fundamental and applications of Nanomaterials** | **NITTTR, Kolkata** | **27-31 July**  **2020** |
| **24** | **Participated in E- seminar** | **Research and ethics** | **Deptt. of Applied Science, SAGE University, Indore, India** | **8 July 2020** |
| **25** | **Invited lecture Resource Person Topic: Sustainable development of**  **society towards a green future** | **Three day faculty development program on 'Sustainable development with green technology: Precovid, Covid and Postcovid** | **Deptt. of Chemistry, Anurag University, Hyderabad, India** | **11-13 June 2020** |
| **26** | **Got A+ in One week STTP on Emerging trends in**  **Research methods** | **Emerging trends in Researchmethods** | **REST society for research International**  **Tamilnadu** | **8-13 June 2020** |
| **27** | **Got A+ in One week STTP on Advanced Research**  **methodology** | **Advanced Research methodology** | **REST society for research International Tamilnadu** | **11-15**  **May2020** |
| **28** | **Got A+ in 3 Days Online Research Methodology**  **Workshop** | **Online Research Methodology Workshop** | **REST society for research International Tamilnadu** | **18-20 April**  **2020** |
| **29** | **Participated in online workshop held under**  **TEQIP-III Project** | **Two Days Online Workshop on Outcome Based Education(OBE)** | **Organized by State Project Implementation Unit, Bihar(SPIU Bihar)** | **29-30 May 2020** |
| **30** | **Attended a one day webinar** | **Virtual lab** | **Conducted by Rohilkhand University, Bareilly** | **6 June 2020** |
| **31** | **Attended a one day webinar** | **SARS CoV2: An**  **Overview of COVID-19** | **Deptt. of Chemistry, Mody University Lakshmangarh,Sikar, Rajasthan, India** | **6 June 2020** |
| **32** | **Attended in 1 Day Webinar** | **Internship for crime free, joband service rich Aatm Samarth Bharat under Auspices of police Reforms MP** | **Deptt. of Forensic Science,Mody University Lakshmangarh,Sikar, Rajasthan, India** | **21 May 2020** |
| **33** | **Participated in 1 Day Webinar** | **Education 4.0** | **Organized by IQAC, VO**  **Chidambaram College, Tamilnadu** | **8 May 2020** |
| 34 | **Qualified with A grade in theonline**  **E-quiz series** | **COVID-19** | **Deptt. of Biotechnology and Microbiology Mohan Lal Sukhadia University, Udaipur Rajasthan, India** | **21 May 2020** |
| **35** | **Presented paper in International**  **Conference** | **International Conference on“Modern Approaches of Chemical Science and Nanomaterials”** | **Deptt. of Chemistry, ModyUniversity** | **26-08-2019 to**  **27-08-2019** |
| **36** | **Attended and Orally presented in Green synthesis of coumarin-3- carboxylic acid derivatives using aqueous fruit**  **extracts as catalyst** | **International Conference onRecent Trends in Environment and Natural Sciences.(ICRTENS- 2019)** | **Govt. Science College, Sikar,Rajasthan, India** | **12-13 Feb , 2019** |
| **37** | **Attended and Poster presented on Nanomaterials catalyzed green chemical synthesis of**  **Biginelli compounds.** | **International Conference onRecent Trends in Environment and Natural Sciences.(ICRTENS- 2019)** | **Govt. Science College, Sikar,Rajasthan, India** | **12-13 Feb , 2019** |
| **38** | **Attended and Poster presented onPlants extract mediated synthesis of nanoparticles** | **International Conference onRecent Advances at Interfaces of Physical and Life Sciences. (RAIPLS- 2019)** | **Balaji Engineering**  **College,Jaipur, Rajasthan India** | **January 28-30,**  **2019** |
| **39** | **Attended and Poster presented on Microwave assisted synthesisof 4H- benzo[b] pyran derivatives by MgO**  **nanoparticles** | **International Conference onRecent Advances at Interfaces of Physical and Life Sciences. (RAIPLS- 2019)** | **Balaji Engineering College, Jaipur, Rajasthan India** | **January 28-30,**  **2019** |
| **40** | **Published a research article on Advancement in Nitrogen containing Energy**  **Material Compounds** | **International Conference on Recent Advances at Interfaces of Physical and Life Sciences. (RAIPLS- 2019)** | **Balaji Engineering College,Jaipur, Rajasthan India** | **January 28-30,**  **2019** |
| **41** | **Published a review article on biologically**  **important Schiff base derivatives** | **National conference on“Advances in Applied Science**  **(AAS-2018)** | **Maharishi Arvind Institute ofEngineering & Technology, Jaipur** | **23 & 24**  **February, 2018** |
| **42** | **Published a review article on Microwave assisted synthesis of bioactive**  **heterocycles** | **National conference on“Advances in Applied Science (AAS-2018)** | **Maharishi Arvind Institute ofEngineering & Technology, Jaipur on 23 & 24 February,**  **2018.** | **23 & 24**  **February, 2018** |
| **43** | **Attended a Chemistry Popularization**  **workshop** | **Popularization workshop,International Student Chapter,** | **American Chemical Society by Department of Chemistry, SOS, Mody University, Laxmangarh, Sikar**  **(Raj.)** | **26-27**  **November 2017** |
| **44** | **Attended and Poster presented in Popular Lecture**  **Series** | **Popular Lecture Series** | **Department of bioscience, SOS, Mody University, Laxmangarh, Sikar** | **25 March, 2017** |
| **45** | **Attended and Poster presented on Green synthesisof indole derivatives under grindstone**  **chemistry technique** | **International conference onfrontiers at the chemistry– allied sciences interface (FCASI)** | **(FCASI),**  **Organized by Centre of Advanced Study, Departmentof Chemistry, University of Rajasthan, Jaipur.** | **April 25-26,**  **2016** |
| **46** | **Attended a Science academics**  **lecture workshop** | **“Emerging technologies based on nanosciences- Apopularization workshop”** | **SOS,**  **Mody University, Laxmangarh, Sikar (Raj.)** | **22-23 April,**  **2016** |
| **47** | **Attended a National workshop** | **Energy efficient lightingtechnology**  **:Recent development and future ahead.”** | **SOS,Mody University, Laxmangarh, Sikar**  **(Raj.)** | **28 November**  **2015** |
| **48** | **Presented on Science academics**  **lecture workshop** | **“Nanoscience & Nanotechnologyy: Challenges and**  **Opportunities.”** | **SOS, Mody University, Laxmangarh, Sikar**  **(Raj.)** | **21-22 Novmber**  **2014** |
| **49** | **Presented on Aqua mediated one pot facile synthesis of thioxo1,2,4- triazin- 5(2H)-one and[1,2,4] triazino [5,6-b] indole**  **Derivatives.** | **Third International Conference on Heterocyclic Chemistry** | **University of Rajasthan, Jaipur- 302004. Organized by Department of**  **Chemistry** | **10-13, 2011** |
| **50** | **Presented paper in 47th Annual Convention of Chemists**  **2007** | **47th Annual Convention ofChemists 2007** | **Department of Chemistry, University of Rajasthan, Jaipur.** | **27Dec. 2007** |
| **51** | **Presented on Accelerated Organic Syntheses via Activation by Microwave- and Ultrasound Irradiation in**  **Eco-friendly Media”.** | **National Symposium on NewFrontiers in Chemical Sciences (NFCS-10)** | **RajasthanUniversity, Jaipur** | **February 25,**  **2010,** |
| **52** | **Presented on “Solvent-Free Green Chemical Alternatives to Accelerate Organic Synthesis Using**  **Microwaves”** | **National Conference On Recent**  **Advancements In Microwave Technique &Applications,** | **Department of Physics, University of Rajasthan, Jaipur.** | **6-8 Oct.2006,** |
| **53** | **Presented in National**  **Symposium on** | **Recent Advances inChemical Research.** | **Department of Chemistry, University of Rajasthan,Jaipur.** | **28-29 March**  **2005,** |
| **54** | **Presented in National Symposium on**  **NewVistas In Organic Synthesis,** | **National Symposium on NewVistas In Organic Synthesis,** | **International College ForGirls, Jaipur** | **20 November**  **2005** |
| **55** | **Presented on “Eco-friendly Synthesis of Thia-Aza Heterocycles: Selectivity Under**  **Microwaves.”** | **2nd International Conference on Heterocyclic Chemistry** | **Universityof Rajasthan, Jaipur** | **16-19 Dec. 2006,** |
| **56** | **Presented on ‘Facile One Pot Green Chemical Microwave Promoted Synthesis of Quinoline Alkaloids; Indolo[3,2-**  **C]Quinoline,”** | **Botanical Products Seminarand Expo,** | **University of Rajasthan,Jaipur.** | **5-7 February**  **2005** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Details of PG guidance** | |  | | |
| **S.No.** | **Name of Scholar** | **Title of Dissertation** | **Name of Department &**  **University Guided** | **Date ofAward** |
| **1** | **Ms. Manisha** **Ruhela** | **Applications of green catalysts in organic synthesis** | **Deptt. of Chemistry, Mody University** | **2022** |
| **2** | **Ms.Kiran Kumari** | Green synthesis of silver, cobalt and palladium nanoparticles | **Deptt. of Chemistry, Mody University** | **2022** |
| **3** | **Bhawana** | **Synthesis of Ionic liquids and their applications** | **Deptt. of Chemistry,Mody University** | **2021** |
| **4** | **Shweta Sunda** | **Novel approach using natural and renewable ingredients for**  **Cosmetics** | **Deptt. of Chemistry,Mody**  **University** | **2020** |
| **5** | **Isha Goyal** | **Sustainable innovation: preparation ofherbal shampoo**  **by green method** | **Deptt. of Chemistry,Mody**  **University** | **2020** |
| **6** | **Priya Devi** | **Aqueous-mediated green synthesis ofheterocyclic**  **Compounds** | **Deptt. of Chemistry,Mody**  **University** | **2019** |
| **7** | **Nikita Nain** | **Green and Environmentally Benign OrganicSynthesis by Using Fruit Juice as Biocatalyst** | **Deptt. of Chemistry, Mody**  **University** | **2019** |
| **8** | **Manohari** | **Nanomaterials catalyzed green chemicalsynthesis of Biginelli compounds** | **Deptt. of Chemistry, Mody**  **University** | **2018** |
| **9** | **Kiran** | **New protocols for Environ- economicsynthesis of potential biodynamic heterocycles.** | **Deptt. of Chemistry, Mody**  **University** | **2018** |
| **10** | **Ms. Nikita** | **Natural acid catalyzed green chemicalsynthesis of various Schiff bases** | **Deptt. of Chemistry,**  **Mody University** | **2017** |
| **11** | **Ms. Sunita Prajapat** | **Green chemical synthesis of various isatinschiff bases under solvent free conditions** | **Deptt. of Chemistry, Mody** | **2017** |
| **12** | **Anjali** | **Green chemical synthesis of various aldehyde schiff bases under solvent freeconditions** | **Deptt. of Chemistry,**  **Mody University** | **2017** |
| **13** | **Manisha** | **New Protocols for Environ- EconomicSynthesis of Potential Biodynamic Heterocycles** | **Deptt. of Chemistry, Mody**  **University** | **2016** |

Details of UG guidance

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1** | **Manvi** | **Potential nutraceuticals and their health benefits** | **Deptt. of**  **Chemistry, Mody University** | **2020** |
| 2 | **Geeta** | **Immunity booster green**  **food:coronavirus disease (covid-19)** | **Deptt. of**  **Chemistry, Mody University** | **2020** |
| **3** | **Anju** | **Multi component transformation of Dimedone:A versatile molecule**  **ingreen reaction**  **media** | **Deptt. of**  **Chemistry, Mody University** | **2019** |
| **4** | **Rinku** | **Microwave assisted synthesis of heterocyclic compounds** | **Deptt. of**  **Chemistry, Mody University** | **2018** |
| **5** | **Pooja** | **Plants extract mediated synthesis of nanoparticles** | **Deptt. of**  **Chemistry, Mody University** | **2018** |
| **6** | **Pooja Sihag** | **Eco-friendly and economic method**  **forKnoevenagel condensation by employing natural catalyst** | **Deptt. of**  **Chemistry, Mody University** | **2017** |
| **7** | **Lalita Jangir** | **Green chemical synthesis of heterocyclic compounds under**  **solventfree conditions** | **Deptt. of**  **Chemistry, Mody University** | **2017** |
| **8** | **Manju** | **Environmentally benign synthesis of**  **2‐oxoindolin‐3‐ylidene derivatives by Knoevenagel condensation** | **Deptt. of**  **Chemistry, Mody University** | **2016** |

Book Chapters:

* 1. **(Chapter-12 Energy Efficiency) in Book Introduction to AI techniques for Renewable Energy System, Taylor & Francis, CRC Press. June 9, 2021 (ISBN No 9780367610920)**
  2. **2D Nanomaterials: Sustainable Materials for Cancer Therapy Applications (Book Chapter 9) Accepted in 2D Functional Nanomaterials (ISBN:978-3-527-34677-6) WILEY–VCH Publisher**
  3. **Nutraceuticals as Therapeutic Agents for Prevention and Treatment of Diseases,**

**Chapter No.: 4499410\_1\_En. 45-68, Springer Nature Singapore Pte Ltd. 2022 K. K. Behera et al. (eds.), Prebiotics, Probiotics and Nutraceuticals,** **ISBN 978-981-16-8989-5 ISBN 978-981-16-8990-1 (eBook) https://doi.org/10.1007/978-981-16-8990-1**

**4. Advanced Oxidation Processes for Wastewater Treatment: Types and Mechanism book chapter 6, 69-78, 2022 Ist Edition published in “Advanced Oxidation Processes for Wastewater Treatment: An Innovative Approach, published by Taylor & Francis Group, LLC, CRC Press, ebook ISBN: 9781003165958**

**5. Book Chapter on “Microbial community profiling in waste water of effluent treatment plants”: Genomics Approach to Bioremediation: Principles, Tools, and Emerging Technologies, Wiley (in press)**

**6. Book Chapter on “Application of microbial enzymes in wastewater treatment”:Genomics Approach to Bioremediation: Principles, Tools, and Emerging Technologies, Wiley (in press)**

**7. Membrane and Membrane-Based Processes for Wastewater Treatment” book chapter in "WASTEWATER TREATMENT & RESEARCH", published by Taylor & Francis Group, LLC, CRC Press, ebook ISBN: 9781003165958**

**8. Emerging Innovative Technologies for Wastewater Treatment” book chapter communicated in "WASTEWATER TREATMENT & RESEARCH", to be published by CRC Press.**

**9.** **NANOTECHNOLOGY: POTENTIAL APPLICATIONS IN MEDICINE published in Futuristic Trends in Chemical, Material Sciences & Nano Technology, ISBN: 978-93-95632-67-6 , IIP Proceedings, Volume 2, Book 13, Part 2, Chapter 4**

**10. GREEN FUTURE OF NANOTECHNOLOGY: GRAPHENE, published in Futuristic Trends in Chemical, Material Sciences & Nano Technology, ISBN: 978-93-95632-67-6 , IIP Proceedings, Volume 2, Book 13, Part 2, Chapter 5**

**11. SUSTAINABLE DEVELOPMENT: SOCIAL EQUALITY, ECONOMIC PROGRESS, AND ENVIRONMENTAL PRESERVATION, published in Futuristic Trends in Chemical, Material Sciences & Nano Technology, ISBN: 978-93-95632-67-6 , IIP Proceedings, Volume 2, Book 13, Part 2, Chapter 6**

**12. Reviewed Chapters (Electrogravimetry and Coulometry, Supercapacitors, Nanoscience and Technology, Lubrication, Thermal Analysis) in Engineering Chemistry OG.Palanna, Tata McGraw Hill, 978-0-07-014610-5**

Summary of Research Work

The field of my research is Green Chemistry. In the course of innovation and contribution to the field of research, I had synthesized novel biologically important scaffolds. Our main purpose is avoiding the use of organic solvent for developing environmentally friendly chemistry, known fora long time for their low cost and toxicity, avoiding time consuming and tedious extractive workup. With this objective and under the frame-work of Green Chemistry, we have synthesized some novel biodynamic sulfur and nitrogen containing ring systems in our laboratory using well known non conventional energy source i.e. microwaves and ultrasound.

1. **Benzopyrano [4,3-e] [1,2,4]-triazolo [3,4-b] [1,3,4]-thiadiazepines.**
2. **3'-substituted spiro[3H-indole-3,2'-thiazolidine]-2,4'(1H)-diones.**
3. **Fluorinated Benzothiazepine Fused β-Lactam Derivatives. (iv)Benzothiazolo[2,3-b] Quinazolines.**

(v) Pyrimido[2,1-b] Benzothiazoles. (vi)Spiro [1, 3-Oxathiolane] Derivatives.

All the products, were purified by crystallization from appropriate solvent and tested for their purity by thin layer chromatography (TLC), using silica gel ‘G’ coated glass plates as adsorbent. The purified products were then subjected to structural characterization by spectroscopy comprising, IR, 1HNMR,13CNMR, 19FNMR, mass and X-ray crystallography in some cases.

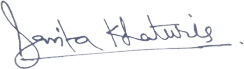
The synthesized compounds were screened for antifungal activity against three pathogenic fungi, namely Rhizoctonia Solani, causing root rot of okra, Fusarium oxysporum, causing wilt of mustard and Colletotrichum capsici causing leaf spot and fruit rot of chilly. I also added a review on the combined use of microwaves and ultrasound: improved tools in process chemistry and organic synthesis. To the contribution in this field I have published many research papers and in reputed International journals.

References

1. **Dr. Anshu Dandia, (Research Supervisor) Professor, Department of Chemistry, University of Rajasthan, Jaipur Rajasthan – 302 004, Ph.: 0141-2520301, email:** [**dranshudandia@yahoo.co.in**](mailto:dranshudandia@yahoo.co.in)
2. **Professor A.K.Das, Deptt.of Chem. SLAS, Mody University of Science and Technology,8233315441,** [**akdas.slas@modyuniversity.ac.in**](mailto:akdas.slas@modyuniversity.ac.in)
3. **Dr. Harshita Sachdeva, Asso.Professor, Deptt.of Chem. University of Rajasthan, Jaipur,9414467822,** [**drhmsachdevaster@gmail.com**](mailto:drhmsachdevaster@gmail.com)
4. **Dr. Harlal Singh, Professor, Deptt.of Chem. SLAS, Mody University of Science andTechnology, 9057277932,** [**harlalsingh.slas@modyuniversity.ac.in**](mailto:harlalsingh.slas@modyuniversity.ac.in)

Declaration

I declare that information furnished is true to the best of my knowledge.



Dr. Sarita Khaturia