

Dr. Sunil Kumar

Assistant Professor,
Department of Chemistry,
J. C. Bose University of Science & Technology, YMCA, Faridabad 121006, India
E-mail: sunil@jcboseust.ac.in ; Contact Number: +91 9729600829
ORCID ID: 0000-0003-0492-8597



ACADEMIC DETAILS

2013	Ph.D. Chemistry	Kurukshetra University, Kurukshetra (2008-2013)
	Thesis Title: Synthesis and Biological Evaluation of Some Natural and Non-Natural Thiazole Derivatives	
2007	M.Sc. Chemistry	Kurukshetra University, Kurukshetra (2005-2007)
2005	B.Sc. Non-Medical	RKSD College, Kaithal, Kurukshetra University (2002-2005)

TEACHING AND RESEARCH EXPERIENCE

Apr 02, 2021- Continue	J. C. Bose University of Science & Technology, YMCA, Faridabad
Aug 05, 2019 - Mar 31, 2021	Maharaja Agrasen University, Baddi, Solan, Himachal Pradesh
Aug 07, 2015 - Mar 31, 2016	SLIET Longowal (Deemed University), Sangrur, Panjab
Aug 01, 2013 - May 09, 2015	NIILM University, Kaithal, Haryana

POST-DOCTORAL RESEARCH EXPERIENCE

Jul 13, 2017 - Jul 12, 2019	Post-Doctoral Fellow in Department of Chemistry, Punjab University, Chandigarh, India
Apr 20, 2016 - May 31, 2017	Post-Doctoral Fellow in Department of Applied Chemistry, National Chiao-Tung University, Hsinchu, Taiwan

INDUSTRIAL RESEARCH EXPERIENCE

Jun 26, 2007 - May 20, 2008	Jubilant Organosys Limited, Noida, India
-----------------------------	--

AWARDS AND FELLOWSHIPS

- CSIR-NET (Chemical Sciences)
- Project Fellow - UGC Project
- Senior Research Fellow – CSIR
- NCC 'C' Certificate
- MOST Taiwan - Post-Doctoral Fellow
- DST (SERB) India - National Post-Doctoral Fellow
- Royal Society of Chemistry-Best Poster Award (RAOBC IISER Mohali)

MEMBERSHIP OF SOCIETIES

- Indian Science Congress Association (ISCA), Kolkata - Life Member
 - Chandigarh Region Innovation and Knowledge Cluster (CRIKC), Chandigarh - Life Member
-

RESEARCH PUBLICATIONS

- 2021** Exploration of synthesis, structural aspects, DFT studies and bio-efficacy of some new DHA-benzohydrazide based copper(II) complexes. Richa, **Sunil Kumar**, J. Sindhu, P. Choudhary, S. Jaglan, E. Zangrando, R. Kumar, S. C. Sahoo, V. Kumar, S. K. Mehta, R. Kataria; Journal of Molecular Structure, 2021, 1228, 129460. [IF 2.01]
- 2020** Post-Pictet-Spengler Cyclization (PPSC): A Strategy to Synthesize Polycyclic β -Carboline-Derived Natural Products and Biologically Active N-Heterocycles. R. Singh, **Sunil Kumar**, M. T. Patil, C.-M. Sun, and D. B. Salunke; Advanced Synthesis & Catalysis 2020, 362, 4027–4077. [IF 5.85]
- 2019** (i) Thiazole: A Privileged Motif in Marine Natural Products. **Sunil Kumar**, R. Aggarwal; Mini Reviews in Organic Chemistry, 2019, 16, 26-34. [IF 1.82]
(ii) Crystal structure, Hirshfeld surface, DFT and BSA binding studies of dihydropyrazole-1-thiocarboxamides. R. Kataria, D. Vashisht, J. Sindhu, S. Sharma, S. K. Mehta, R. Kumar, S. C. Sahoo, **Sunil Kumar**, F. Qu, F. A. Afkhami, A. Gupta; Journal of Molecular Structure, 2019, 1196, 662-675. [IF 2.01]
- 2018** (i) Regioselective Synthesis of Angular Isocoumarin-selenazole: A Benzoselenazole-directed, Site-specific, Ru-catalyzed C(sp²)-H Activation. S. Dhole, J.-Y. Liao, **Sunil Kumar**, D. B. Salunke, and C.-M. Sun; Advanced Synthesis & Catalysis 2018, 360, 942-950. [IF 5.85]
(ii) A concise and efficient route to the total synthesis of bacillamide and its analogues. **Sunil Kumar**, R. Aggarwal; ARKIVOC 2018, iii, 354-361. [IF 1.25]
(iii) Design, synthesis, DFT, docking studies and ADME prediction of some new coumarinyl linked pyrazolylthiazoles: Potential standalone or adjuvant antimicrobial agents. **Sunil Kumar**, V. Saini, I. K. Maurya, J. Sindhu, M. Kumari, R. Kataria, V. Kumar; PlosOne 2018, 13(4), 1-23. [IF 2.81]
- 2017** (i) Diversity-Oriented Synthesis of Coumarin-Linked Benzimidazole via a One-pot Three-step Intramolecular Knoevenagel Cyclization. P.-H. E. Yao, **Sunil Kumar**, Y.-L. Liu, C.-P. Fang, C.-C. Liu, C.-M. Sun; ACS Combinatorial Science 2017, 19, 271–275. [IF 3.17]
(ii) Enantiospecific Synthesis of Imidazoquinazolin-2-ones via Base-Catalyzed Tandem Cyclization. **Sunil Kumar**, P.-H. Ho, I. J. Barve, C.-M. Sun; Chemistry Select 2017, 2, 8917–8921. [IF 1.81]
- 2016** Solvent-free synthesis of bacillamide analogues as novel cytotoxic and anti-inflammatory agents. **Sunil Kumar**, R. Aggarwal, V. Kumar, R. Sadana, B. Patel, P. Kaushik, D. Kaushik; European Journal of Medicinal Chemistry 2016, 123, 718-726. [IF 5.57]

- 2015** Synthesis of some 2-(3-alkyl/aryl-5-trifluoromethylpyrazol-1-yl)-4-(coumarin-3-yl)thiazoles as novel antibacterial agents. **Sunil Kumar**, R. Aggarwal, C. Sharma; Synthetic Communications, 2015, 17, 2022-2029. [IF 1.79]
- 2013** Synthesis and pharmacological evaluation of some novel 2-(5-hydroxy-5-trifluoromethyl-4,5-dihydropyrazol-1-yl)-4-(coumarin-3-yl)thiazoles. R. Aggarwal, **Sunil Kumar**, P. Kaushik, D. Kaushik, G. K. Gupta; European Journal of Medicinal Chemistry 2013, 62, 508-514. [IF 5.57]
- 2012** (i) Sodium carbonate-mediated facile synthesis of 4-substituted-2-(3,5-dimethylpyrazol-1-yl)thiazoles under solvent-free conditions. R. Aggarwal, **Sunil Kumar**, S. P. Singh; Journal of Sulfur Chemistry 2012, 33, 521-525. [IF 1.96]
(ii) Role of α -functionalized carbonyl compounds, solvents and pH on the composition of products. R. Aggarwal, **Sunil Kumar**, S. P. Singh; Indian Journal of Heterocyclic Chemistry 2012, 22, 135-140. [IF 0.16]
(iii) Synthesis and antibacterial activity of some 4-(coumarin-3-yl)/aryl-2-(3,5-dimethylpyrazol-1-yl)thiazoles. R. Aggarwal, **Sunil Kumar**, S. P. Singh; Indian Journal of Heterocyclic Chemistry 2012, 21, 331-336. [IF 0.16]
- 2011** Synthesis and antibacterial activity of some 5-hydroxy-5-trifluoromethyl-4,5-dihydropyrazol-1-thiocarboxamides, 3-trifluoromethylpyrazol-1-thiocarboxamides and 4-aryl-2-(5(3)-trifluoromethyl-1-pyrazolyl)thiazoles. R. Aggarwal, R. Kumar, **Sunil Kumar**, G. Garg, R. Mahajan, J. Sharma; Journal of Fluorine Chemistry 2011, 132, 965-972. [IF 2.32]

BOOK CHAPTERS

- 2016** A Book Chapter entitled "Thiazole: A Privileged Scaffold in Drug Discovery" in "CHEMICAL DRUG DESIGN" Published by De Gruyter. Chapter 11; page numbers 243 - 276. Authors List: **Sunil Kumar**, M. Patil, R. Kataria, D. B. Salunke. DOI: 10.1515/9783110368826-013
- 2021** A Book Chapter entitled "Control of Escherichia Coli using Coumarin Derivatives" in "Advances in Microbial Research" Published by CambridgeScholars. [Under communication]

INTERNATIONAL CONFERENCES - RESEARCH PRESENTATION

- 2020** Rohtak Chapter of Indian Science Congress Association on "Science & Technology: Rural Development" at Maharishi Dayanand University, Rohtak, From March 4-5, 2020
- 2019** "Recent Advances in Organic and Bio-organic Chemistry" held at IISER, Mohali from Mar 22-24, 2019 & sponsored by Royal Society of Chemistry and IISER Mohali
- 2018** "19th Tetrahedron Symposium" Celebrating the 25th Anniversary of Bioorganic and Medicinal Chemistry held at Riva del Garda, Italy from 26-29 June, 2018.
- 2013** "Recent Advances in Chemical Science", An International Conference held at Arya P.G. College, Panipat from Feb. 24-26, 2013.
- 2012** "Chemical Constellation Cheminar-2012" Theme: Chemistry for Sustainable Development and Innovations (An International Conference) held at Dr. B. R. Ambedkar National Institute of Technology, Jalandhar from Sep. 10-12, 2012.

NATIONAL CONFERENCES - RESEARCH PRESENTATION

- 2018** CHASCON 2018 held at Department of Chemistry, Panjab University, Chandigarh from Feb 12-14, 2018
- 2015** "Professor Ram Chand Paul: National Symposium on Innovation in Chemical Sciences" held in Department of Chemistry and Centre for Advance Studies in Chemistry at Panjab University during 20-21 March, 2015.
- 2015** National Seminar on "Recent Trends in Physics and Chemistry" held at S.A. Jain College, Ambala City on Mar 25, 2015.
- 2013** "100th Indian Science Congress" held at Calcutta University, Kolkata from Jan. 3-7, 2013.
- 2011** "98th Indian Science Congress" held at SRM University, Chennai during Jan. 3-7, 2011.
- 2010** "The National Conference on Green and Sustainable Chemistry" held at Birla Institute of Technology and Science, Pilani during Feb. 19-21, 2010.

INVITED TALKS

- 2018** Futuristic Aspects in Chemical Sciences & Technology (FACT) 2018 held at SAIF/CIL, Panjab University, Chandigarh from April 28-29, 2018 (Invited talk).
- 2017** (i) Invited lecture on "Spectroscopic Tools for Analysis of Organic Compounds" in Department of Chemistry, Rayat Bahra University on Sep 19, 2017.
(ii) "National Seminar on Innovative Practices in Chemistry" held at S.A. Jain (P.G.) College, Ambala City on Feb 23, 2017 (Invited talk).

WORKSHOPS / FACULTY DEVELOPMENT PROGRAM

- 2021** Participated in Faculty Development Program on "Accelerating Innovations in Material Science - Surface Characterization" organized by Department of Chemistry, BMS Institute of Technology & Management, Bengaluru, India from May 18-22, 2021.
- 2019** (i) Global Initiative for Academic Networks (GIAN) for the Course "Primary Immunodeficiency Diseases From Bench to Bedside" held at Panjab University, Chandigarh from Feb 18-22, 2019.
(ii) Participated in "SPARC International Workshop on Vaccine Chemistry and Immunology" held at Panjab University, Chandigarh from Apr 16, 2019
(iii) Participated in Faculty Development Program on "Use of ICT in Life Sciences" jointly organized by NIT Patna and Maharaja Agrasen University from Nov 29 - Dec 7, 2019
- 2017** Global Initiative for Academic Networks (GIAN) for the Course "Chemical Biology and Drug Discovery" held at NIPER Mohali from Oct 24-30, 2017

FACULTY INDUCTION PROGRAM

- 2022** Participated in 8th Faculty Induction Program organized by Jamia Millia Islamia, New Delhi from 15th February to 16th March 2022

PARTICIPATION IN OTHER PROGRAMS

- 2022** National Seminar on National Education Policy - 2020 organized by Jamia Millia Islamia, New Delhi on 9th - 10th March 2022
- 2022** University Distinguished Lecture titled "Science, Technology and Innovation Policy 2020: A Transformative S&T Agenda" delivered by Prof. Sandeep Verma, Secretary, SERB, DST
-

SPONSORED PROJECT

- 2017** NATIONAL POST-DOCTORAL FELLOW: NPDF/2017/003021
Project Title: Synthesis of Novel Heterocycles of Biological Interest via Unconventional Pictet-Spengler Reaction
Awarded by: Science and Engineering Research Board (SERB), DST, New Delhi
Duration: July 2017 - July 2019 Grant: INR 19,20,000/-