

Curriculum Vitae

- **Name:** Dr. Komal Jakhar
- **Designation:** Associate Professor
- **Department:** Chemistry
- **Field of Specialization:** Organic Chemistry
- **Teaching Experience:** 13 Years
- **Research Experience:** 17 Years
- **Office Address:** Department of Chemistry,
Maharshi Dayanand University,
Rohtak-124001, Haryana India
- **Residential Address:** H.No: 1369/13, Opposite Jeevan Eye Hospital,
Delhi Road, Rohtak-124001, Haryana, India
- **Mobile No:** 9255533306
- **Email Id:** komal.jakhar@rediffmail.com
- **Field of Research Interest:** Heterocyclic Compounds, Green Chemistry
- **Educational Qualification:** M.Sc. Chemistry, N.E.T., J.R.F., S.F.R., Ph.D.
- **Academic Societies Membership:**

Life Member of Indian Science Congress Association

Life member of Indian Thermodynamic Society



- **Carrier Profile:**

Designation	Institute	Duration	
Associate Professor	Department of Chemistry, M. D. University, Rohtak	May 1, 2022	Till Date
Assistant Professor	Department of Chemistry, M. D. University, Rohtak	May 1, 2010	April 30, 2022

- **Participation in Conferences/**

Seminars/Workshops: 40

- **Research Papers Published:** 32

- **Courses attended:** 06

List of Publications

1. An eco-friendly oxidative bromination of alkanones by an aqueous grinding technique, K. Jakhar and J.K. Makrandi, Green Chemistry Letters and Reviews, 2008, 1, 219-221.
<https://doi.org/10.1080/17518250802660407>
2. Synthesis and antibacterial activity of 3-(coumarin-3-yl)acylthio-5H-1,2,4-triazino[5,6-b]indoles, K. Jakhar and J.K. Makrandi, Indian Journal of Heterocyclic Chemistry, 2010, 20, 189-190.
https://www.researchgate.net/publication/290784417_Synthesis_and_antibacterial_activity_of_3-coumarin-3-yl_acylthio-5H-124-triazino_56-b_indoles
3. Synthesis of 2-aryl-5- (benzofuran-2-yl)- thiazolo [3,2-b] [1,2,4] triazoles using green procedures and their antibacterial activity, K. Jakhar and J.K. Makrandi, Indian Journal of Chemistry, Sec B, 2012, 51B, 531-536.
[https://nopr.niscpr.res.in/bitstream/123456789/13701/1/IJCB%2051B\(3\)%20531-536.pdf](https://nopr.niscpr.res.in/bitstream/123456789/13701/1/IJCB%2051B(3)%20531-536.pdf)
4. An efficient synthesis of 3-bromoflavones under solvent free conditions using grinding technique, K. Jakhar and J.K. Makrandi, Indian Journal of Chemistry, Sec B, 2012, 51B, 770-773.
<https://nopr.niscpr.res.in/bitstream/123456789/14071/1/IJCB%2051B%285%29%20770-773.pdf>
5. A green synthesis and antibacterial activity of 2-aryl-5-(coumarin-3-yl)-thiazolo[3,2-b][1,2,4]triazoles, K. Jakhar and J.K. Makrandi, Indian Journal of Chemistry, Sec B,

51B, 1511-1516.

<https://nopr.niscpr.res.in/bitstream/123456789/14808/1/IJCB%2051B%2810%29%201511-1516.pdf>

6. Synthesis and antibacterial activity of 3-(cinnoline-3-yl)acylthio-5H-1,2,4-triazino[5,6-b]indoles, K. Jakhar and J.K. Makrandi, Indian Journal of Heterocyclic Chemistry, 2012, 22, 173-176.
https://connectjournals.com/achivestoc2.php?fulltext=25031022H_173-176.pdf&&bookmark=CJ-001644&&issue_id=22-02&&yaer=2012
7. Eco-friendly bromination of chalcones and synthesis of flavones using grinding techniques, K. Jakhar and J.K. Makrandi, Indian Journal of Chemistry, Sec-B, 2013, 52B, 141-145.
[https://nopr.niscpr.res.in/bitstream/123456789/15629/1/IJCB%2052B\(1\)%20141-145.pdf](https://nopr.niscpr.res.in/bitstream/123456789/15629/1/IJCB%2052B(1)%20141-145.pdf)
8. A proficient role of Zirconium oxychloride octahydrate with sodium nitrite for deoxygenation of various aldoximes and ketoximes under solvent free conditions, P. Sharma, R. Singh and K. Jakhar, Journal of Advanced Chemical Sciences, 2016, 2(4), 400-402.
<https://jacsdirectory.com/journal-of-advanced-chemical-sciences/articleview.php?id=131>
9. Montmorillonite K-10 catalyzed facile synthesis of 1,3-disubstituted ureas from biuret under solvent free conditions, K. Jakhar, R. Singh and P. Sharma, Journal of Advanced Chemical Sciences, 2016, 2(4), 409-411.
<https://jacsdirectory.com/journal-of-advanced-chemical-sciences/articleview.php?id=134>
10. Synthesis and antimicrobial evaluation of urea and thiourea derivatives of sulfonic acid, R. Singh, K. Jakhar, P. Sharma and G. Vinoth Kumar, Der Pharma Chemica, 2016, 8(19), 261-267. <https://www.derpharmachemica.com/pharma-chemica/synthesis-and-antimicrobial-evaluation-of-urea-and-thiourea-derivatives-of-sulfonic-acid.pdf>
11. Green synthesis of saccharin substituted urea and thiourea derivatives and their antimicrobial evaluation, R. Singh and K. Jakhar, Der Pharma Chemica, 2016, 8(20), 175-181.
<https://www.derpharmachemica.com/pharma-chemica/green-synthesis-of-saccharin-substituted-urea-and-thiourea-derivatives-and-their-antimicrobial-evaluation.pdf>
12. $ZrOCl_2 \cdot 8H_2O$: An efficient catalyst for the synthesis of N,N-disubstituted ureas from

- biuret under solvent free conditions, R. Singh, K. Jakhar and P. Sharma, *Chemical Science Transactions*, 2017, 6(1), 135-140.
<http://www.e-journals.in/pdf/V6N1/135-140.pdf>
13. Synthesis of carbethoxycinnoline derivatives and antimicrobial evaluation, K. Jakhar, *Journal of Biological and Chemical Chronicles*, 2018, 4(2), 65-69.
<https://www.eresearchco.com/articles/synthesis-of--carbethoxycinnoline-derivatives-and-antimicrobial-evaluation.pdf>
 14. Synthesis of cinnoline substituted triazoles with greener procedures and antibacterial evaluation, K. Jakhar, *Journal of Applicable Chemistry*, 2018, 7(6), 1631-1635.
<http://www.joac.info/ContentPaper/2018/19-7-6-32-14.pdf>
 15. Preparation and photoluminescent characteristics of green Tb(III) complexes with β -diketones and N donor auxiliary ligands, A. Dalal, K. Nehra, A. Hooda, D. Singh, K. Jakhar and S. Kumar, *Inorganic Chemistry Communications*, 2022, 139, 109349.
<https://doi.org/10.1016/j.inoche.2022.109349>
 16. Preparation, optoelectronic and spectroscopic analysis of fluorinated heteroleptic samarium complexes for display applications, K. Nehra, A. Dalal, A. Hooda, K. Jakhar, D. Singh and S. Kumar, *Inorganica Chimica Acta*, 2022, 537, 120958.
<https://doi.org/10.1016/j.ica.2022.120958>
 17. Preparation and photoluminescent analysis of Sm^{3+} complexes based on unsymmetrical conjugated chromophoric ligand, A. Hooda, K. Nehra, A. Dalal, S. Singh, S. Bhagwan, K. Jakhar and D. Singh, *Journal of Material Science: Materials in Electronics*, 2022.
<https://doi.org/10.1007/s10854-022-08089-w>
 18. Synthesis, thermal and photoluminescence investigation of Tb(III) β -diketonates with 1,10-phenanthroline derivatives, K. Nehra, A. Dalal, A. Hooda, S. Bhagwan, K. Jakhar, D. Singh, R. S. Malik, S. Kumar and B. Rathi, *Journal of Luminescence*, 2022, 251, 119233.
<https://doi.org/10.1016/j.jlumin.2022.119233>
 19. Facile and environmental friendly fluorinations using ionic liquids, K. Jakhar, *Current Organic Synthesis*, 2022, 19, 1-25.
<http://dx.doi.org/10.2174/1570179419666220208104453>
 20. Synthesis of Carboxamides and Carbothioamides of Phthalimide: Molecular Modeling and Biological Investigation, R. Gavadia, J. Rasgania and K. Jakhar, *Asian Journal of Chemistry*, 2022, 34(12), pp. 3231-3242.
<https://doi.org/10.14233/ajchem.2022.24042>

21. Synthesis, Type II diabetes inhibitory activity, antimicrobial evaluation, and docking studies of N'-arylidene-2-((7-methylbenzo[4,5]thiazolo[2,3-c] [1,2,4]triazol-3-yl)thio)acetohydrazides, S. Mor, S. Sindhu, M. Khatri, R. Punia and K. Jakhar, *European Journal of Chemistry*, 2022, 13(4), 426-434. <https://doi.org/10.5155/eurjchem.13.4.426-434.2315>
22. Antimicrobial evaluation and QSAR studies of 3,6-disubstituted-11H-benzo[5,6][1,4]thiazino[3,4-a]isoindol-11-ones, S. Mor, S. Sindhu, M. Khatri, R. Punia, H. Sandhu, J. Sindhu and K. Jakhar, *European Journal of Medicinal Chemistry Reports*, 2022, 5, 100050. <https://doi.org/10.1016/j.ejmcr.2022.100050>
23. Synthesis and in vitro anticancer evaluation of 8b-hydroxy-1-(6-substitutedbenzo[d]thiazol-2-yl)-3-(3-substitutedphenyl)-1,8b-dihydroindeno[1,2-c]pyrazol-4(3aH)-ones, S. Mor, M. Khatri, R. Punia, D. Kumar, D. K. Jindal, B. Basu and K. Jakhar, *Journal of Molecular Structure*, 2022, 1269, 133858. <https://doi.org/10.1016/j.molstruc.2022.133858>
24. Facile synthesis, pharmacological and In silico analysis of succinimide derivatives: An approach towards drug discovery, J. Rasgania, R. Gavadia and K. Jakhar, *Journal of Molecular Structure*, 2023, 1274, 134424. <https://doi.org/10.1016/j.molstruc.2022.134424>
25. Synthesis and in vitro antimicrobial evaluation of benzothiazolyindenopyrazoles, S. Mor, M. Khatri, R. Punia and K. Jakhar, *Medicinal Chemistry Research*, 2023, 32(1), 47-56. <https://doi.org/10.1007/s00044-022-02988-7>
26. Synthesis of isoniazid analogs with promising antituberculosis activity and bioavailability: Biological evaluation and computational studies, R. Gavadia, J. Rasgania, M.V. Basil, V. Chauhan, S. Kumar and K. Jakhar, *Journal of Molecular Structure*, 2023, 1283, 135325. <https://doi.org/10.1016/j.molstruc.2023.135325>
27. Facile One-Pot Synthesis of Nicotinamide Analogs: Biological and Computational Evaluation, J. rasgania, R. Gavadia, R. K. Kapoor, V. Saharan and K. Jakhar, *Asian Journal of Chemistry*; Vol. 35, No. 6 (2023), 1463-1472. <https://doi.org/10.14233/ajchem.2023.27878>
28. Preparation and spectral features of Dy(III) β -Diketonates with m, m'-Disubstituted N-donor aromatic auxiliary moieties for displays, A. Hooda, D. Singh, A. Dalal, S. Malik, S. Redhu, K. Jakhar, S. Kumar, R. S. Malik and P. Kumar, *Inorganic Chemistry Communications*, 2023, 155, 111018. <https://doi.org/10.1016/j.inoche.2023.111018>

- 29.** Synthesis of isatin-tagged thiadiazoles as anti-breast cancer leads: In-vitro and in-silico investigations, J. Rasgania, R. Gavadia, S. Nimesh, L. Loveleen, S. Mor, D. Singh and K. Jakhar, *Journal of Molecular Structure*, 2023, 1294, 136464.
<https://doi.org/10.1016/j.molstruc.2023.136464>
- 30.** Design and synthesis of isoniazid-based pyrazolines as potential inhibitors of *Mycobacterium tuberculosis* with promising radical scavenging action: In-vitro and in-silico evaluations, J. Rasgania, R. Gavadia, M. Varma-Basil, V. Chauhan, S. Kumar, S. Mor, D. Singh and K. Jakhar, *Journal of Molecular Structure*, 1295, 2024, 136657.
<https://doi.org/10.1016/j.molstruc.2023.136657>
- 31.** Synthesis, biological evaluations and *in silico* studies on pyrimidine-appended fused pyrazolones as anticancer and antimicrobial agents, S. Mor, R. Punia, M. Khatri, D. Kumar, A. Kumar, D. K. Jindal, N. Singh, R. Sharma, M. Ahmed, S. Shukla and K. Jakhar, *Journal of Molecular Structure* 1296 (2024) 136759.
<https://doi.org/10.1016/j.molstruc.2023.136759>
- 32.** Design and synthesis of triazole-functionalized isatin hybrids with potent anti-proliferative action against triple-negative breast cancer MDA-MB-231 cell line: a hybrid pharmacophore approach, J. Rasgania, R. Gavadia, S. Nimesh, L. Loveleen and K. Jakhar, *Journal of the Iranian Chemical Society*, 2023,
<https://doi.org/10.1007/s13738-023-02936-1>