# **Hira Karim**

Temporary Visiting Faculty

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## **About**

Dr. Hira Karim is working as Temporary Visiting Faculty in the School of Natural Sciences. Dr. Hira Karim has published 7 research articles & conference papers having a citation count of 15, carried out 0 projects and filed 0 intellectual property.

## **Qualifications**

# **Experience**

**Temporary Visiting Faculty** 

School of Natural Sciences

2023- Present

#### **Research Articles**

# Unravelling the role of non-covalent interactions using imidazolium and amino acid based organic salts

2025

for efficient CO2capture: Experimental, DFT and COSMO-RS explorations

Hira Karim Sabahat Sardar Asad Mumtaz Anila Tabassum Muhammad Arfan Azhar Mahmood Jean-Marc Leveque Cecilia Devi Wilfred Syed Farooq Adil Mohammad Rafe Hatshan Mujeeb Khan

Journal of Environmental Chemical Engineering, Volume:13, Issue:3, Article Number 116237

Impact Factor: 7.400 | Quartile: 1 | Citations: 1

DOI: 10.1016/j.jece.2025.116237

## Phytochemical evaluation and biosynthesis of Ocimum tenuiflorum based iron nanoclusters: An integrated experimental and DFT approach

2025

Hira Karim Manjeet Kaur Jitender Rathee Khushwant Nandal Priyanka Dahiya Abdul Rajjak Shaikh Anshul Sharma

Results in Surfaces and Interfaces, Volume 19, Article Number 100494

Impact Factor: N/A

DOI: https://doi.org/10.1016/j.rsurfi.2025.100494

#### Choline-based amino acid ionic liquids for CO2 capture

2025

Abdul Rajjak Shaikh Andrea Grillo Massimo Christian D'Alterio Jason J. Pajski Syazwani Itri Amran Hira Karim Mohit Chawla Giovanni Talarico Albert Poater Luigi Cavallo

Journal of Molecular Liquids, Volume: 424, Article Number 127084

Impact Factor: 5.300 | Quartile: 1 | Citations: 2 DOI: https://doi.org/10.1016/j.molliq.2025.127084

## Effect of the anionic counterpart of amino acid based Ionic liquids upon efficient CO2 Capture: A correlation of experimental and DFT study

2024

Hira Karim Sabahat Sardar Hajra Bibi Fouzia Perveen Muhammad Arfan Asad Mumtaz

Journal of Molecular Liquids, Volume 405, Article Number 125079

Impact Factor: 5.300 | Quartile: 1 | Citations: 4

DOI: 10.1016/j.molliq.2024.125079

### Enhanced antioxidant activity in Imidazolium-based protic organic salts: An insight into structure activity relationship via experimental and modelling approaches

2024

Sabahat Sardar Erum Jabeen Hira Karim Asad Mumtaz

Journal of Molecular Liquids, Volume: 404, Article Number: 124964

Impact Factor: 5.3 | Quartile: 1 | Citations: 1

DOI: 10.1016/j.molliq.2024.124964

#### Acetone-Treated Au Nanoparticles Supported on CeO2 for the Wet Air Oxidation of Dimethylformamide

2024

Sajid Ali Kok Bing Tan Shafqat Ullah Muhammad Junaid Aslam Jile Fu Hira Karim Binghui Chen Guowu Zhan

ACS Applied Nano Materials, Volume:7, Issue:5, Page:5113-5123

Impact Factor: 5.3 | Quartile: 2 | Citations: 3

DOI: 10.1021/acsanm.3c05901

#### **Book Chapters**

#### Electrospun fibers: promising materials for oil water separation

2024

Muhammad Shahzeb Khan Muhammad Ibrar Asif Hira Karim Syeda Alvia Zainab Muhammad Asif Muhammad Sohail Mohsin Ali Junaid Munawar Shahid Nawaz Hameed UI Hag

In: Book on Nanotechnology for Oil-Water Separation: From Fundamentals to Industrial Applications, Chapter 11, Pages 261-288

DOI: https://doi.org/10.1016/B978-0-323-95517-1.00011-1