

CURRICULUM VITAE

PERSONAL INFORMATION **Dr. Sumbul Rahman**



Details of Ph.D **Ph.D from IIT (ISM), Dhanbad, India.**

“Preparation, Characterization and Catalytic Activity studies of different Metal doped Mesoporous Silica Catalyst for Oxidation Reaction”

EDUCATION AND TRAINING

Title of qualification awarded	Master of Philosophy
Principal subjects	Applied Chemistry
Name of organisation	IIT (ISM), Dhanbad, India
Title of qualification awarded	Master of Science,
Principal subjects	Organic Chemistry
Name of organisation	P.K.R. M College, Dhanbad, Vinoba Bhave University, India
Title of qualification awarded	Bachelor of Science,
Principal subjects	Physical, Inorganic and Organic chemistry, Physics and Maths
Name of organisation	S.S.L.N.T College, Dhanbad, Vinoba Bhave University, India
Technical skills	FESEM/HRTEM, XRF, XRD, CCS, G.C, BET-Surface Area, FTIR, UV- Vis.

Other skills Doing research work on heterogeneous catalysis, synthesis and characterization of prepared material by different instrumental techniques, activity studies of various catalysts for different liquid and gas phase reactions.

- WORK EXPERIENCE**
- i) Project Assistant in CIMFR (CSIR Lab), Digwadih Campus, Dhanbad, India**
 - ii) Assistant Professor in SR International Institute of Technology, Hyderabad.**
 - iii) Assistant Professor in Presidency University, Bengaluru**
 - iv) HoS(Quality) , Refratechnik India Private Ltd. Vizag**

ADDITIONAL INFORMATION

- Publications**
- 1. Sumbul Rahman**, Chiranjit Santra, Rawesh Kumar, Jitendra Bahadur, Asima Sultana, Ralf Schweins, Debasis Sen, Sudip Maity, S. Mazumdar, Biswajit Chowdhury
Highly Active Ga Promoted Co-HMS-X catalyst towards styrene epoxidation reaction using molecular O₂
Applied Catalysis A: General 482 (2014) 61–68.
Impact Factor- 2014 - 4.19 , 2022 – 5.69
 - 2. Sumbul Rahman**, S. A. Farooqui, Aditya Rai, Rawesh Kumar, Chiranjit Santra, Vinod C Prabhakaran, Gopala Ram Bhadu, Debasis Sen, S. Mazumdar, Sudip Maity, Anil Sinha and Biswajit Chowdhury
Mesoporous TUD-1 supported indium oxide nanoparticles catalyst for epoxidation of styrene using molecular O₂
RSC Adv., 2015, 5, 46850-46860.
Impact Factor- 2015 - 3.47 , 2022 – 4.08
 - 3. Sumbul Rahman**, Nagasuresh Enjamuri, Ruth Gomes, Asim Bhaumik, Debasis Sen, J. K. Pandey, S. Mazumdar and Biswajit Chowdhury
Aerobic Baeyer-Villiger oxidation of cyclic ketones over periodic mesoporous silica Cu/Fe/Ni/Co-HMS-X
Applied Catalysis A: General 505 (2015) 515-523.
Impact Factor- 2014 - 4.19 , 2022 – 5.69
 - Chiranjit Santra, **Sumbul Rahman**, Sreedhar Bojja, Olusola O. James, Debasis Sen, Sudip Maity, Ashok Kumar Mohanty, S. Mazumdar, Biswajit Chowdhury
Barium, calcium and magnesium doped mesoporous ceria supported gold nanoparticle for benzyl alcohol oxidation using molecular O₂
Catalysis Science & Technology, 3 (2013) 360–370
Impact Factor- 2013 - 4.7 , 2022 – 5.0
 - Sandip Mandal, **Sumbul Rahman**, Rawesh Kumar, Kyoko K. Bando, Biswajit Chowdhury
XAFS, XPS characterization of cerium promoted Ti-TUD-1 catalyst and it's activity for styrene oxidation reaction
Catalysis Communications, 46 (2014) 123–127
Impact Factor- 2014 - 4.02 , 2022 – 3.95
 - Sandip Mandal, Chiranjit Santra, Rawesh Kumar, Malay Pramanik, **Sumbul Rahman**, Asim Bhaumik, Sudip Maity, Debasis Sen, Biswajit Chowdhury
Niobium doped hexagonal mesoporous silica(HMS-X) catalyst for vapor phase Beckmannrearrangement reaction
RSC Advances, 4 (2014) 845–854
Impact Factor- 2014 - 4.03 , 2022 – 4.08
 - Vipin Amoli, Saleem Farooqui, Aditya Rai, Chiranjit Santra, **Sumbul Rahman**, Anil Kumar Sinha and Biswajit Chowdhury
Indium nanocluster doped TiO₂ catalyst for activation of molecular O₂.
RSC Adv., 5(2015) 67089-67092.
Impact Factor- 2015 - 3.47 , 2022 – 4.08

8. Sumbul Rahman, Sneha Shah, Chiranjit Santra, Debasis Sen, Sadanand Sharma, J.K. Pandey, S. Mazumder and Biswajit Chowdhury
Controllable synthesis of Niobium doped Mesoporous Silica materials with various morphologies and its Activity for Oxidative catalysis.
Microporous and Mesoporous Materials, 226 (2016) 169-178.
Impact Factor- 2016 - 3.61 , 2022 – 5.87

Book Chapters

1. Sumbul Rahman, Chiranjit Santra
Nano-Catalysts: Recent Development in Preparation Methodologies
Frontiers in Nanotechnology, Bharti Publications, New Delhi, 2022, Chapter 21, pp 229–238
ISBN: 978-93-91681-74-6
2. Sumbul Rahman, Chiranjit Santra
Nanomaterials – A brief Study,
Plastic Waste Management, Bharti Publications, New Delhi, 2022, Chapter 17, pp 122–129
ISBN: 978-93-91681-06-7
3. Sumbul Rahman, Chiranjit Santra
Recycling of Waste PET fabric Challenges & Opportunities
Plastic Waste Management, Bharti Publications, New Delhi, 2022, Chapter 6, pp 38–49, ISBN: 978-93-91681-06-7

Conferences

1. Selective Oxidation of Organic Compound over Nanoporous Silica Catalyst.
Sumbul Rahman, Biswajit Chowdhury
Current Trends in Chemistry (CTRIC-2012), CUSAT, Kochi, Kerala, India
(Oral and Poster presentation)
2. Vapor Phase Beckmann Rearrangement reaction over Nb-KIT-6 Catalyst.
Sumbul Rahman, Rawesh Kumar and Biswajit Chowdhury
International Conference on Interface between Chemistry and Environment. (ICICE-2012), Ramjas College, New Delhi, India
(Poster presentation)
3. Highly active Co-HMS-X catalyst for styrene epoxidation reaction using molecular O₂.
Sumbul Rahman, Rawesh Kumar and Biswajit Chowdhury
Recent Development in Chemical Science and Technology (RDCST), NIT, Rourkela, India
(Oral presentation)
4. Highly active Co-HMS-X catalyst for styrene oxidation reaction using molecular O₂.
Sumbul Rahman, Rawesh Kumar and Biswajit Chowdhury
Structural and Physical properties of Solids (SPPS-2013), ISM, Dhanbad, India
(Poster presentation)
5. Mesoporous TUD-1 catalyst for epoxidation of styrene using molecular O₂.
Sumbul Rahman and Chiranjit Santra
AMPT.2020. NIT, Jamshedpur
(Oral presentation)

6. Mesoporous catalyst HMS-X for different oxidation reactions with green chemistry approach.

Sumbul Rahman and Chiranjit Santra

Advances in Science and Technology for Betterment of Health, Environment and Energy. **GITAM, Bengaluru.**

(Oral presentation)

Declaration

I hereby declare that all the information provided here is correct to the best of my knowledge.

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