Centre/School/Special Centre: School of studies, Engineering and technology

Department: Chemical Engneering

Phone: 8878384867

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Personal Webpage Link

https://scholar.google.co.in/citations?user=ZuIG-_AAAAAJ&hl=en

https://www.researchgate.net/profile/Ghoshna-Jyoti

Qualifications

Ph.D. (Chemical Engineering)

National Institute of Technology Raipur, Chhattisgarh, India

Broad Research Area: "Experimental and Computational Study on Esterification-Pervaporation Integrated System"

M. Tech. (Chemical Engineering)

National Institute of Technology Rourkela, Odisha, India.

B. Tech. (Chemical Engineering)

National Institute of Technology Raipur, Chhattisgarh, India.

Area of Interest/Specialization

Process intensification (Pervaporation), Reaction kinetics, Process design, modeling and simulation

Experience: 6 years

Awards and Honors

Research Projects

- UGC Startup Grant 2021, Amount: 10 Lakh, Duration: 2 years, Status: Ongoing

International Collaboration/Consultancy

Best Peer Reviewed Publication (up-to 10)

1. **Ghoshna Jyoti**, Shabina Khanam. 2014. "Simulation of heat integrated multiple effect evaporator system." **International Journal of Thermal Sciences** 76, 110-117.
2. **Ghoshna Jyoti**, Amit Keshav, J. Anandkumar. 2015. "Review on pervaporation: Theory, membrane performance and application to intensification of esterification reaction." **Hindawi Publishing Corporation, Journal of Engineering**. Volume 2015, Article ID 927068.
3. **Ghoshna Jyoti**, Amit Keshav, J. Anandkumar. 2016. "Experimental and Kinetic Study of Esterification of Acrylic Acid with Ethanol Using Homogeneous Catalyst". **International Journal of Chemical Reactor Engineering** 14 (2), 571-578.
4. **Ghoshna Jyoti**, Amit Keshav, J. Anandkumar. 2017. "Esterification of acrylic acid with ethanol using pervaporation membrane reactor." **Korean Journal of Chemical Engineering**. 34(6), 1661–1668.
5. Rajkishor Choudhary, **Ghoshna Jyoti**, Prabir Ghosh, Ashish N. Sawarkar, Parmesh Kumar Chaudhari. 2017. "Electrocoagulation process to remove contaminants of coking wastewater using aluminum electrode", **Desalination and Water Treatment**, 86, 68–79.
6. **Ghoshna Jyoti**, Amit Keshav, J. Anandkumar, Stutee Bhoi. 2018. "Homogeneous and heterogeneous catalyzed esterification of acrylic acid with ethanol: Reaction Kinetics and Modeling." **International journal of chemical kinetics** 50, 370-380.
7. **Ghoshna Jyoti**, Amit Keshav, J. Anandkumar. 2019. "Optimization of esterification of acrylic acid and ethanol by Box–Behnken design of response surface methodology." **Indian Journal of Chemical Technology**, 26, 89-94.
8. **Ghoshna Jyoti**, Stutee Bhoi, Dileshwar Kumar Sahu. 2019 "Production and Isolation of n-Butyl Acrylate using Pervaporation aided Esterification Reaction: Kinetics and Optimization." **Chemical Engineering & Technology**. 42, No. 3, 1–12.
9. Neela Acharya, **Ghoshna Jyoti**, Chandrakant Thakur, Parmesh Kumar Chaudhari. 2020. "Treatment of domestic sewage using electrocoagulation followed by ion exchange – parametric and kinetic studies." **Desalination and Water Treatment**. 1-9.

10. Kosuri Praveena, Sandeep Dharmadhikari, **Ghoshna Jyoti**, Manivannan Ramachandran. 2020. "Synthesis and characterization of cellulose acetate based proton exchange membranes." Journal of the Indian Chemical Society, 97, 1025-1028.
11. Neeraj Chandraker, **Ghoshna Jyoti**, Raghwendra Singh Thakur and Parmesh Kumar Chaudhari, 2020 "Removal of Fluoride using Fly Ash Adsorbent" IOP Conference Series: **Earth and Environmental Science**, volume 597, 2020.
12. Neeraj Chandraker, Parmesh Kumar Chaudhari, **Ghoshna Jyoti,** Abhinesh Prajapati and Raghwendra Singh Thakur 2021 "Removal of fluoride from water by electrocoagulation using Mild Steel electrode". **Journal of the Indian Chemical Society**, 98 (2), February 2021, 100026.
13. Neeraj Chandraker, Parmesh Kumar Chaudhari, **Ghoshna Jyoti**, Raghwendra Singh Thakur, (2022) Defluoridation of water by electrocoagulation using aluminum electrode, Indian Journal of Chemical Technology 29, 554 doi; 10.56042/ijct.v29i5.62186
14. Saurabh Meshram, Raghwendra Singh Thakur, **Ghoshna Jyoti**, Chandrakant Thakur and Anupam B.Soni, 2022 "Optimization of lead adsorption from lead-acid battery recycling unit wastewater using H2SO4 modified activated carbon". **Journal of the Indian Chemical Society**, Available online 14 April 2022, 100469.
15. **Ghoshna Jyoti**, Rakhi Soni, 2022 "Kinetics study of esterification reaction of acrylic acid with n-butanol". **Materials Today: Proceedings,** Available online 21 September 2022.
16. Amitesh, D. Dohare, **Ghoshna Jyoti**, C. Rekhete, S. Dubey, and A. K. Prajapati, 2023, "Optimization of Electrocoagulation Process for the Removal of Chromium from Simulated Water Using the Response Surface Methodology", **Journal of Water Chemistry and Technology,** Vol. 45, No. 5, pp. 429–439.
17. Rakhi Soni, **Ghoshna Jyoti** 2023 "Kinetics of esterification of acetic acid with n-butanol over different homogeneous acid catalysts" **International Journal of Chemical Kinetics,** Available online 16 October 2023, DOI: 10.1002/kin.21694.

Recent Books/Book Chapters/Monographs etc.

- Deepak Sharma, Abhinesh Prajapati, Raghwendra Singh Thakur, **Ghoshna Jyoti**, and Parmesh Kumar Chaudhari Removal of Cr (VI) and Pb from Electroplating Effuent Using Ceramic Membrane January 2023, In book: Membrane and Membrane-Based Processes for Wastewater Treatment, CRC Press, ISBN: 9781003165019, DOI: 10.1201/9781003165019-14

Research Supervision:

- PhD scholar: 1 (ongoing)
- B.Tech: 9 (completed) 5 (ongoing)

Administrative Responsibilities

- Member, Games and Sports Committee (2019-20)
- Acted as Judge in Tech Fest activities at the School level (2019-20)
- Faculty In-charge AICTE Students Induction Programme (2020-21)
- Member, Research Committee Cell, SoS, Engg. & Tech.
- Member, DRC Committee in the Department of Chemical Engineering (2020-21)
- Member, M. Tech Admission Committee of Department of Chemical Engineering
- Member, Documents Verification Committee of B. TECH Program (2020-21, 2022-23)
- Class In-charge for B. Tech. second year for sessions 2020-21 and 2022-23
- NSS program officer of Chemical Unit for session 2022-23 and 2023-24
- Member, Gender Audit Report preparation Committee at IQAC, GGV Bilaspur
- Co-coordinator of NAAC SSR Criteria II at IQAC, GGV Bilaspur
- Member, Scrutiny, and document verification committees of various departments in the Faculty recruitment process (2021-22, 2022-23)
- Faculty In-charge, Criteria 2 NAAC Departmental Committee of Department of Chemical Engineering
- Faculty In-charge, Criteria 5 NBA Departmental Committee of Department of Chemical Engineering
- Member, Coordination Committee for Repairing & Maintenance/Extension (R&M/E) Work (2022-23)
- Member, Discipline and Anti-ragging Committee in the Department of Chemical Engineering (2022-23)
- Member, Cultural Activity Committee, SoS, Engg. & Tech. (2022-23, 2023-24)
- Member, NIRF Committee, SoS, Engg. & Tech. (2022-23)
- Class In-charge for B. Tech. Third year for sessions 2023-24

Additional Information