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DESIGNATION: Asst. Professor

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Department of Chemical Engineering

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### **Educational Details**

- Ph. D in Chemical Engineering from Indian Institute of Technology, Guwahati
- M. Tech in Petroleum Technology from Dibrugarh University
- B. E. in Chemical Engineering from Regional Engineering College, Durgapur

### **Areas of Interest**

- Ceramic Composite Membrane based Separation
- Petroleum Refining and Petrochemical Processes
- Environmental Pollution
- Heat Transfer Operation

### **Recent Publications**

#### **International Journals:**

1. **Ashim Kumar Basumatary**, R. Vinoth Kumar, Alope Kumar Ghoshal and G. Pugazhenthii, Synthesis and characterization of MCM-41-ceramic composite membrane for the separation of chromic acid from aqueous solution, Journal of Membrane Science, 475 (2015) 521-532.
2. R. Vinoth Kumar, **Ashim Kumar Basumatary**, Alope Kumar Ghoshal and G. Pugazhenthii, Performance assessment of analcime-C zeolite-ceramic composite membrane by separation of Cr (VI) from aqueous solution, RSC Advances, 5 (2015) 6246-6254.

3. **Ashim Kumar Basumatary**, P. Vikram Singh, R. Vinoth Kumar, Alope Kumar Ghoshal and G. Pugazhenth, Development and characterization of MCM-48 ceramic composite membrane for the removal of Cr (VI) from aqueous solution, *ASCE Journal of Environmental Engineering*, 0733-9372 (2015) C4015013-11.
4. **Ashim Kumar Basumatary**, Alope Kumar Ghoshal and G. Pugazhenth, Performance assessment of MCM-48 ceramic composite membrane by separation of AlCl<sub>3</sub> from aqueous solution, *Ecotoxicology and Environmental Safety*, 134 (Part 2) (2016) 398-402.
5. **Ashim Kumar Basumatary**, Partha Pratim Adhikari, Alope Kumar Ghoshal and G. Pugazhenth, Fabrication and performance evaluation of Faujasite (FAU) zeolite composite ultrafiltration membrane by separation of trivalent ions from aqueous solution, *Environmental Progress & Sustainable Energy*, 35 (2016) 1047-1054.
6. **Ashim Kumar Basumatary**, R. Vinoth Kumar, Alope Kumar Ghoshal and G. Pugazhenth, Cross flow Ultrafiltration of Cr (VI) using MCM-41, MCM-48 and Faujasite (FAU) zeolite ceramic composite membranes, *Chemosphere*, 153 (2016) 436-446.
7. **Ashim Kumar Basumatary**, Alope Kumar Ghoshal and G. Pugazhenth, Removal of FeCl<sub>3</sub> from aqueous solution by ultrafiltration using mesoporous MCM-48 ceramic composite membrane, *Separation Science and Technology*, 51 (2016) 2038-2046.
8. **Ashim Kumar Basumatary**, R. Vinoth Kumar, Kannan Pakshirajan and G. Pugazhenth, Removal of trivalent metal ions from aqueous solution via crossflow ultrafiltration system using zeolite membranes, *Journal of Water Reuse Desalination*, 6 (2017) jwrtd 2016211.
9. **Ashim Kumar Basumatary**, R. Vinoth Kumar, Kannan Pakshirajan and G. Pugazhenth, Iron(III) removal from aqueous solution using MCM-41 ceramic composite membrane, *Membrane Water Treatment*, 7(6) (2016) 495-505.

## Conferences:

1. **Ashim Kumar Basumatary**, A. K. Ghoshal and G. Pugazhenthhi, Fabrication and removal of  $\text{AlCl}_3$  with FAU zeolite composite membrane from aqueous solution, National Conference on Challenges in Environmental Research, 4-6 June 2015, IIT Guwahati, Assam, India.
2. **Ashim Kumar Basumatary**, A. K. Ghoshal and G. Pugazhenthhi, Performance Assessment of MCM-48 Ceramic Composite Membrane by Separation of  $\text{AlCl}_3$  from Aqueous Solution, International Conference on Green Technology for Environmental Pollution Prevention and Control (ICGTEPC 2014), 27-29 September 2014, National Institute of Technology Tiruchirappalli (NITT), India.
3. **Ashim Kumar Basumatary**, Partha Pratim Adhikari, A. K. Ghoshal and G. Pugazhenthhi, Development and Performance Evaluation of MCM-41-Ceramic Composite Membrane by Separation of  $\text{AlCl}_3$  from Aqueous Solution, International Conference on Advances in Chemical Engineering & Technology (ICACE '14), 16-18 October 2014, Thangal Kunju Musaliar College of Engineering, Kollam, Kerala, India.
4. **Ashim Kumar Basumatary**, Partha Pratim Adhikari, R. Vinoth Kumar, A. K. Ghoshal and G. Pugazhenthhi, Synthesis of FAU-type Inorganic Ultrafiltration Membrane, National Seminar on Recent trends in Fundamental and Applied Chemical Sciences (RTFACS-2014), 19-21 November 2014, Department of Chemistry, Dibrugarh University, Dibrugarh, Assam.
5. **Ashim Kumar Basumatary**, A. K. Ghoshal and G. Pugazhenthhi, Preparation and Evaluation of MCM-48 Ceramic Composite Membrane by Separation of  $\text{FeCl}_3$  from Aqueous Solution, Frontiers in Chemical Sciences (FICS 2014), 4-6 December 2014, IIT Guwahati, Assam.
6. **Ashim Kumar Basumatary**, R. Vinoth Kumar, Partha Pratim Adhikari, Alok Kumar Ghoshal and G. Pugazhenthhi, Ultrafiltration of  $\text{FeCl}_3$  from aqueous solution using MCM-41 ceramic composite membrane, International Conference on Environment (ICENV 2015), Penang, Malaysia, 18-19 August 2015.

7. **Ashim Kumar Basumatary**, Kunal Pant, R. Vinoth Kumar, Alope Kumar Ghoshal and G. Pugazhenthii, Ceramic supported Faujasite (FAU) zeolite composite membrane for the removal of Cr (VI) from aqueous solution, International Conference on Membrane Technology and its Applications (MEMSEP-2017), 21-23 February 2017, National Institute of Technology, Tiruchirappalli, India.

### **Course taught**

- Heat Transfer Operation
- Mechanical Operation
- Energy Engineering
- Chemical Engineering Thermodynamics
- Chemical Process Industries
- Process Instrumentation
- Process Dynamics and Control
- Process Equipment Design
- Environmental Pollution Control Engineering
- Petroleum Production Technology
- Advance Separation Techniques