

Dr. Amit Keshav



Academic Profile :

1. B.Tech. (Chemical Engineering), Shaheed Bhagat Singh Collage of Engineering and Technology, Ferozepur, Punjab Technical University, Jalandhar, Punjab,
2. M.E. (Chemical Engineering), Panjab University, Chandigarh
3. PhD (Chemical Engineering), Indian Institute of Technology (IIT) Roorkee

Teaching Experience :

1. Lecturer, Seth Jai Parkash Institute of Engineering and Technology, JMIT, Radaur, Yamunanagar,
Haryana (Period: 13.02.03-31.05.03; 02.02.04-08.01.07)
2. Assistant professor, National Institute of Technology Raipur since Feb. 2006

Industrial Experience :

Nil

Paper Published in International Journals

12

1. **Amit Keshav** , Kailas Wasewar and Shri Chand, Extraction of Propionic Acid Using Different Extractants (Tri-*n*-butylphosphate, tri-*n*-octylamine and Aliquat 336). *Industrial & Engineering Chemistry Research* **2008**, *47*, 6192–6196
2. **Amit Keshav**, Shri Chand, and Kailas L. Wasewar, Equilibrium studies for extraction of propionic acid using tri-*n*-butyl phosphate in different solvents. *Journal of Chemical and Engineering Data*, **2008**, *53*, (7), 1424–1430
3. **Amit Keshav**, Shri Chand and Kailas Wasewar, Equilibrium and kinetics of extraction of propionic acid using tri-*n*-octylphosphineoxide. *Chemical Engineering and Technology* **2008**, *31* (9), 1290-1295.
4. **Amit Keshav**, Kailas Wasewar and Shri Chand, Reactive extraction of propionic acid with tri-*n*-octylamine in different diluents. *Separation and Purification Technology* **2008**, *63*, 179-183.

5. **Amit Keshav**, Kailas Wasewar and Shri Chand, Study of binary extractants and modifier –diluent systems for reactive extraction of propionic acid, *Fluid Phase Equilibria* **2008**, 275, 21–26.
6. **Amit Keshav**, Shri Chand and Kailas Wasewar, Recovery of propionic acid from aqueous stream by reactive extraction: Effect of diluents. *Desalination* **2009**, 244, 12-23.
7. **Amit Keshav**, Shri Chand and Kailas Wasewar, Recovery of propionic acid by reactive extraction using tri-n-butyl phosphate in petroleum ether: Equilibrium study, *Chemical and Biochemical Engineering Quarterly* **2008**, 22(4), 433-437.
8. **Amit Keshav**, Kailas L. Wasewar, and Shri Chand, Extraction of acrylic, propionic and butyric acid using Aliquat 336 in oleyl alcohol: Equilibria and effect of temperature, *Industrial & Engineering Chemistry Research* **2009**, 48 (2), 888–893.
9. **Amit Keshav**, Kailas Wasewar and Shri Chand, Reactive extraction of propionic acid using tri-n-octylamine, tri-n-butyl phosphate and Aliquat 336 in sunflower oil as diluent, *Journal of Chemical technology and Biotechnology*. Published Online: 14 Oct (**2008**).
10. **Amit Keshav**, Shri Chand and Kailas Wasewar, Recovery of propionic acid by reactive extraction using quaternary amine (Aliquat 336) in various diluents. *Chemical Engineering Journal*. **2009**, 152, 95-102.
11. **Amit Keshav**, Kailas L. Wasewar, Shri chand, Hasan Uslu, Ismail Inci, Thermodynamics of reactive extraction of propionic acid, *i-manager's Journal on Future Engineering and Technology*. **2009**, 4(2), 41- 49.
12. **Amit Keshav**, Kailas Wasewar and Shri Chand, Extraction of propionic acid from model fermentation broth: Effect of pH, salts, substrate, and temperature, *AIChE Journal*, **2009e**, 55(7), 1705-1711.

Paper Published in National Journals

02

1. **Amit Keshav**, Kailas Wasewar and Shri Chand, Reactive extraction of propionic acid using Aliquat 336 in MIBK: Linear solvation energy relationship (LSER) modeling and kinetics study. *Journal of Scientific & Industrial Research*. Vol. 68, 708-713 (**2009**)
2. **Amit Keshav**, Ishita Singh, Kailas L. Wasewar, Shri Chand, Hasan Uslu and Ismail Inci, Intensification of recovery of propionic acid using tri-n-butyl phosphate: 1. physical and chemical equilibrium, *ICFAI Journal of Chemistry*, Vol. II, No. 1, 61-70 (**2009**).

Papers in Conferences

34

1. **Amit Keshav**, S. Chand and Kailas L. Wasewar, Process Intensification in Hydrocarbon Industries: methodology and Application, *International Conference on "Present Status and Future Trends in Petroleum Industry"* (06-08 December 2007), Indian School of Mines Dhanbad INDIA (2007).
2. **Amit Keshav**, S. Chand and Kailas Wasewar, Equilibrium and Kinetic modeling for extraction of carboxylic acids: A review. International Conference on Modeling and Simulation, CITICOMS 2007, 27-29 August 2007 Coimbatore Institute of Technology, Coimbatore, INDIA (2007).
3. **Amit Keshav**, Kailas L. Wasewar , Shubin Puri , Manish Gupta, S. Chand, Modeling of Reactive Extraction System for Lactic Acid Recovery. CITICOMS 2007, 27-29 August 2007 Coimbatore Institute of Technology, Coimbatore, INDIA (2007).
4. **Amit Keshav**, Abhimanyu Kumar, Shri Chand and Kailas L. Wasewar, Reactive extraction of butyric acid: A clean technology. *Indo-Italian Conference on Green and Clean Environment (GCE-2008)*, MITCOE, Pune, 20-21 March (2008).
5. **Amit Keshav**, Manu Agarwal, and Kailas Wasewar Reactive extraction of glycolic acid using tri-n-octyl amine: cleaner technology, *Proceedings of Indo-Italian Conference on Green and Clean Environment (GCE 2008)*, MITCOE, Pune, 20-21 March 2008 pg. 1005-1012 (2008).
6. **Amit Keshav**, Suresh Kumar, and Kailas Wasewar, , Reactive extraction: A clean technology for recovery of itaconic acid, *Proceedings of Indo-Italian Conference on Green and Clean Environment (GCE 2008)*, MITCOE, Pune, 20-21 March 2008 pg.691-699 (2008).
7. **Amit Keshav**, Kailas L. Wasewar, Diwakar Z. Shende, Dr. Ismail Inci, Chemistry of extractive fermentation of carboxylic acids, International Conference on Arts, Science, Management and Engineering, Goa, 23-25 April, (2009).
8. **Amit Keshav**, Kailas L. Wasewar, Diwakar Z. Shende, Dr. Ismail Inci, Extraction of glycolic acid: chemical equilibria and modeling. *International Conference on Arts, Science, Management and Engineering*, Goa, 23-25 April, (2009).
9. **Amit Keshav**, Kailas L. Wasewar, Diwakar Z. Shende, Dr. Ismail Inci, Reactive extraction of citric acid from aqueous solutions. *International Conference on Arts, Science, Management and Engineering*, Goa, 23-25 April, (2009).
10. **Amit Keshav**, Kailas L. Wasewar, Diwakar Z. Shende, Dr. Hasn Uslu, Extraction of citric acid from aqueous solutions using tri-n-butyl phosphate in different diluents (Abstract Ref. No. ICBF 160. International Conference on "Challenges in Biochemical Engineering and Food Technology"

Department of Technology, Annamalai University, Annamalai Nagar – 608002, Tamil Nadu, 26-28th August, (2009).

11. **Amit Keshav**, Kailas L. Wasewar, Diwakar Z. Shende, Dr. Ismail Inci, Chemistry of extractive fermentation of propionic acid, (Abstract Ref. No. ICBF 159) International Conference on “*Challenges in Biochemical Engineering and Food Technology*” Department of Technology, Annamalai University, Annamalai Nagar – 608002, Tamil Nadu 26-28th August, (2009).
12. **Amit Keshav**, Seema, Thermal degradation of coriander leaves: Kinetic modeling, International Conference on “*Challenges in Biochemical Engineering and Food Technology*”. Department of Technology, Annamalai University, Annamalai Nagar – 608002, Tamil Nadu 26-28th August, (2009).
13. **Amit Keshav**, Rumi Choudhary, Kailas L. Wasewar, and Shri Chand, LSER modeling of reactive extraction of propionic acid using tri-n-octyl amine and tri-n-butyl phosphate in different diluents. *International Conference on Separation Processes, DCET, IIT BHU, Varanasi*, Oct 20 – 22, (2009).
14. **Amit Keshav**, Seema, Rumi Choudhary, Reactive Extraction – Process Synthesis. *International Conference on Separation Processes, DCET, IIT BHU, Varanasi*, Oct 20 – 22, (2009).
15. **Amit Keshav**, Seema, Kailas L. Wasewar, Dr. A.B. Soni and Divya Raheja, Cleaner technology for recovery of carboxylic acid: Chemistry and mass action modeling, Indo-Italian Conference of Emerging Trends in Waster Management Technologies (ETWMT-2009), MIT COE & MIT Pune, Dec- 3-4, 2009.
16. **Amit Keshav**, S. Chand and Kailas L. Wasewar, Extraction of propionic acid using quaternary ammonium chloride (Aliquat 336), *International Symposium & 60th Annual Session of IChE in association with International Partners (CHEMCON-2007)*, 27-30th December, Calcutta, INDIA. MS:2454 (2007)
17. **Amit Keshav**, Kailas L. Wasewar, Krishan Kumar, Indrajeet Singh Gill and S. Chand, Reactive extraction of propionic acid using tri-n-butyl phosphate: effect of diluents, *International Symposium & 60th Annual Session of IChE in association with International Partners (CHEMCON-2007)*, 27-30th December, Calcutta, INDIA. MS:2466 (2007).
18. **Amit Keshav**, S. Chand and Kailas L. Wasewar, Mathematical interpretation of reactive extraction of propionic acid using Langmuir isotherm and LSER model, *Indian chemical Engineering Congress (Chemcon-2008) “Green Technology and Sustainable Development” Panjab University, Chandigarh*, Dec. 27-30, (2008).

19. **Amit Keshav**, S. Chand and Kailas L. Wasewar, Sustainable development of chemical processing using application of process intensification methodology, *Indian chemical Engineering Congress (Chemcon-2008) "Green Technology and Sustainable Development" Panjab University, Chandigarh, Dec. 27-30, (2008).*
20. **Amit Keshav**, Ishita Singh, and Kailas L. Wasewar Recovery of acrylic acid from aqueous solutions using tri-n-butyl phosphate in different diluents. *Indian chemical Engineering Congress (Chemcon-2008) "Green Technology and Sustainable Development" Panjab University, Chandigarh, Dec. 27-30, (2008).*
21. **Amit Keshav**, Kailas L. Wasewar, Manoj Kumar, Mohit Arora, Neeraj Mishra and Prashant Jain Thermodynamics of 1-octanol/water partition coefficient of different carboxylic acids, *Indian chemical Engineering Congress (Chemcon-2008) "Green Technology and Sustainable Development" Panjab University, Chandigarh, Dec. 27-30, (2008).*
22. **Amit Keshav**, Kailas L. Wasewar, Suresh Kumar, Effect of temperature on recovery of itaconic and nictonic acid from aqueous solutions, *Indian chemical Engineering Congress (Chemcon-2008) "Green Technology and Sustainable Development" Panjab University, Chandigarh, Dec. 27-30, (2008).*
23. **Amit Keshav**, Seema, Raj Kumar Singh, Rumi Choudhary, Effect of salts on the reactive extraction of lithium, CHEMCON-2009 *Indian Chemical Engineering Congress-2009, The Indian Institute of Chemical Engineers 27th – 30th December, (2009).*
24. **Amit Keshav**, Seema, Rumi Choudhary, Reactive Extraction of Propionic Acid Using Tri-n-butyl phosphate: Kinetics Study. CHEMCON-2009 *Indian Chemical Engineering Congress-2009, The Indian Institute of Chemical Engineers 27th – 30th December, (2009).*
25. **Amit Keshav**, Rumi Choudhary, P. K. Chaudhari, and, Raj K. Singh Synthesis, Characterization of Some Metal Phthalocyanine Carboxylamide Derivatives and their Activity Study as Catalyst for Merox Process. CHEMCON-2009 *Indian Chemical Engineering Congress-2009, The Indian Institute of Chemical Engineers 27th – 30th December, (2009).*
26. **Amit Keshav**, Seema, Rumi Choudhary, Effects of salts on the separation of acetic acid from aqueous solutions. CHEMCON-2009 *Indian Chemical Engineering Congress-2009, The Indian Institute of Chemical Engineers 27th – 30th December, (2009).*

27. **Amit Keshav** , S. Chand and Kailas L. Wasewar, Intensification of propionic acid separations using TBP in mixed diluents, *23rd National Convention of Chemical Engineers, IE(I) and IIT Roorkee*, pg. 460-470, 5-7 October (2007).
28. **Amit Keshav** , S. Chand and Kailas L. Wasewar, Realizing process intensification – a step toward implementation, *23rd National Convention of Chemical Engineers, IE(I) and IIT Roorkee*, pg. 525-533, 5-7 October (2007).
29. **Amit Keshav**, S. Chand, Kailas L. Wasewar. Reactive extraction of carboxylic acids. *All India Seminar on “Emerging trends and sustainable technologies for separation processes in chemical and allied industries.”* The Institution of Engineers (India), Jaipur, 28-29 July (2007).
30. **Amit Keshav**, S. Chand, Kailas L. Wasewar. Reactive extraction of propionic acid. *All India Seminar on “Emerging trends and sustainable technologies for separation processes in chemical and allied industries.”* The Institution of Engineers (India), Jaipur, 28-29 July (2007).
31. **Amit Keshav**, Manu agarwal, and Kailas L. Wasewar, Extraction equilibrium study of glycolic acid using tri-n-butyl phosphate in kerosene. *Annual Research Symposium in Chemical Engineering (Chemference-08)*, 5-6 July, IIT Kanpur (2008).
32. **Amit Keshav**, Seema, Shri Chand and Kailas L. Wasewar, Experimental studies on recovery of propionic acid using mixed extractants (TOA + TBP). *Annual Research Symposium in Chemical Engineering (Chemference-08)*, 5-6 July, IIT Kanpur (2008).
33. **Amit Keshav**, Reactive extraction as a tool to recover lithium. *Annual Research Symposium in Chemical Engineering (Chemference-08)*, 5-6 July, IIT Kanpur (2008).
34. **Amit Keshav**, Manu agarwal, and Kailas L. Wasewar, Recovery of carboxylic acids from bioreactors using sunflower oil as diluents. National conference on Clean Technology and Cleaner Production, DCRUST, Murthal, 8-9 MAY (2008).
35. **Amit Keshav**, Suresh Kumar and Kailas L. Wasewar, Recovery of itaconic acid from aqueous streams. National conference on Clean Technology and Cleaner Production, DCRUST, Murthal, 8-9 MAY (2008).
36. **Amit Keshav**, Debabrata Garai, Kailas L. Wasewar and Vineet Kumar, Reactive extraction: An intensifying approach for recovery of gluconic acid. *All India Seminar on “Advances in Chemical engineering”* The Institution of Engineers (India), Lacknow, 28-30 September (2008).

37. **Amit Keshav**, Debabrata Garai, Kailas L. Wasewar and Vineet Kumar, Advances in recovery of gluconic acid. *All India Seminar on “Advances in Chemical engineering”* The Institution of Engineers (India), Lacknow, 28-30 September (2008).
38. **Amit Keshav**, Kailas L. Wasewar and Shri Chand, Intensification of propionic acid recovery using reactive extraction, 3rd Uttarakhand State Science and Technology Congress (November, 2008).

Paper Reviewed

1. Journal of Chemical and Engineering Data, 2009
- 2 International Journal of Chemical Reactor Engineering 2009

Thesis Supervised

Phd Thesis: Nil

M Tech thesis: Nil

B. Tech thesis: Four

Training Programme Attended

- Hazardous waste, batteries waste and E-waste management. Sponsored by CPCB, Venue IIT Roorkee, Nov. 13-15, 2008.
- Induction training programme, NIT Raipur, June 08-20, 2009.

Research areas:

- **Reactive Extraction**
- **Vapour liquid equilibria**
- Process Intensification
- Food science

Seminars organized

Organized national level seminars at JMIT Radaur:

- Solid waste management, March 1-2, 2005.
- Energy Sources and Management, Feb. 24-25, 2005.