

PUBLICATIONS

Patents and Copyrights

1. Patent Title: AN IONIC LIQUID-BASED NANO-PHOTOCATALYST AND A METHOD OF PREPARATION THEREOF, Authors: Dr. Dipesh S Patle, Dr. Sushil Kumar, Dr. P.R. Bhagat, Ms. Aparna Gautam. Application No.: 202311049944, Filed on: 2023-07-25. (**Granted**: Patent No. 533205).
2. Patent Title: A Process of microbial decolorization of reactive textile dyes, Authors: Dr. Sushil Kumar; Dr. Radha Rani; Mrs. Ankita Srivastava. Application No.: 202311003682, Filed on 2023-01-18. **Published** on 2023-05-26.

Journals/Books Editors

1. **Kumar, S.,** Patle D.S., Ahmad Z. (**Guest editors**), Technological interventions in biomass processing: thematic issue for an international conference "CHEM-CONFLUX²²", *Biomass Conversion and Bio-refinery Journal (Springer)*, (2023). <https://doi.org/10.1007/s13399-023-04539-5>
2. **Kumar, S.,** Patle D.S., Ahmad Z. (**Guest editors**), Thematic issue on Technological interventions for promoting sustainability: selected extended papers from an international conference 'CHEM-CONFLUX²²' *Environmental Science and Pollution Research (Springer)* 30, 2023. <https://doi.org/10.1007/s11356-023-26521-4>
3. **Kumar, S.,** Patle D.S., Ahmad Z. (**Guest editors**), Special issue on "International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX 2022)" *Material Today: Proceedings Journal (Elsevier)*, vol. 78(1), A1-A16, 1-208, 2023.
4. **Kumar, S.,** Patle D.S., Mungray A., (**Guest editors**), Special issue on "International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX 2022)" *Energy Nexus Journal (Elsevier)*, 2023.
5. **Kumar, S.,** Patle D.S. (**Guest editors**), Special issue on "CHEM-CONFLUX²²", *Chemical Product and Process Modeling Journal (De Gruyter)* 16(2), 2023
6. **Kumar, S.,** Patle D.S., Zarghami R., (**Guest editors**), Special issue on "CHEM-CONFLUX²⁰", *Chemical Product and Process Modeling Journal (De Gruyter)* 16(2), 2021.
7. **Kumar, S.,** Patle D.S., (**Guest editors**), *Journal of Indian Chemical Society (Elsevier)* vol. 97(10a) 2020.
8. **Kumar, S.,** Patle D.S., Katiyar P., Sawarkar A.N. (eds.) *Proceedings, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22)*, Excellent Publishing House, New Delhi, April 14-16, 2022 (ISBN 9789394086166).
9. **Kumar, S.,** Patle D.S. (eds.) *Proceedings, International Conference on Energy and Environmental Technologies for Sustainable Development (CHEM-CONFLUX20)*, Excellent Publishing House, New Delhi, February 14-16, 2020 (ISBN 9789386238863).
10. **Kumar, S.,** Jain, A. (eds.) *Proceedings, Conference on Technological Advancements in Chemical and Environmental Engineering*. Excellent Publishing House, New Delhi, March 23-24, 2012 (ISBN No.: 978519381583-31-9).

Book Chapters

1. Gautam, A., Kumar, S. and Patle, D.S., Process intensification opportunities in the production of microalgal biofuels. *Microalgae-Based Systems: Process Integration and Process Intensification Approaches*, p.377. Publisher: Walter de Gruyter GmbH & Co KG.r, 2023

2. Meena R.R., Soni, P., **Kumar, S.**, *Electrocoagulation of fluoride from water with Fe-based ion electrode* in Book entitled "Advanced Treatment Technologies for Fluoride Removal in Water" (Springer Nature) 2023, 978-3-031-38845-3
3. Wasewar K.S., **Kumar, S.**, *Life cycle assessment (LCA) of plastics* in Book titled "Plastic and Microplastic in the Environment: Management and Health Risks" <https://doi.org/10.1002/9781119800897.ch13> (Elsevier) 2022.
4. Kamsonlian, S., Yadav, S., Wasewar K.S., Gaur A., **Kumar, S.**, *Treatment of contaminated water: membrane separation and biological processes*, Book titled "Contamination of Water: Health Risk Assessment and Treatment Strategies" (Elsevier) 2021, Pages 339-350, <https://doi.org/10.1016/B978-0-12-824058-8.00034-7>.
5. Arfin, R.M., Wasewar K.S., Katiyar P., **Kumar, S.**, *Process Intensification in wastewater treatment: Cavitations and hybrid technologies for organic pollutants* Book titled "Contamination of Water: Health Risk Assessment and Treatment Strategies" (Elsevier) 2021, Pages 363-374, <https://doi.org/10.1016/B978-0-12-824058-8.00034-7>.
6. Srivatava, A. Saxena, D., Patle, D., Gaur, A., **Kumar, S.** "Wastewater Treatment using Nano-Adsorbents based on Chitin/Chitosan Derivatives: A Review" Excel India Publishers, New Delhi (2020) (978-93-89947-26-7)
7. Gehlaut A.K., Hasan S.U., **Kumar S.**, Gaur A. "An overview of advance nano-materials for carbon dioxide capture and storage" Excel India Publishers, New Delhi (2020) (978-93-89947-26-7)
8. Patle, D.S., Khajone, V., Bhagat, P.R., Jaiswal, A.K., **Kumar, S.** "Functionalized ionic liquids for photodegradation of dyes" the book entitled "Water Pollution and Remediation: Photocatalysis" M. Inamuddin (ed.) **Springer**, 2020.
9. Sheth P. N., Gupta S., **Kumar S.** "Energy Integration in Process plants" for book entitled Sustainable utilization of natural resources, Mondal P., Dalai A. K. (eds.), **CRC Press** 2015 (ISBN No.: 9781315153292-19).
10. Nitin Sahai, Tanvi Jain, **Sushil Kumar** and P.K.Dutta "Development and selection of porous scaffolds using computer aided tissue engineering: An important tool for regenerative medicine" in New Springer book Series on "Polymer and Composite Materials" on Chitin & Chitosan for Regenerative Medicine Part II: Focus on therapeutics, functionalization & computer aided techniques. (ISBN No.: 978-81-322-2510-2) **Springer Pub.**
11. **Kumar, S.**, Prakash, N., Datta, D. *Biopolymers based on Carboxylic Acids Derived from Renewable Resources*, in Biopolymers: Biomedical and Environmental Applications. Susheel Kalia and Luc Avérus (eds.), **Scrivener Wiley Publishing** LLC, USA, 2011, 169-182 (ISBN No.: 9780470639238).

International Journals

1. Meena RR., Singh R.M., Soni P., Kumar R., **Kumar S.** Intensification of fluoride removal using electrocoagulation reactor with rotating fins and rings electrodes (Aluminium and Iron) in different configurations. [*Chemical Engineering and Processing: Process Intensification* \(Elsevier; IF: 4.3\)](#), 2025 (Accepted in Press).
2. Kumar S, **Kumar, S.** Potential of Deep Eutectic Solvents as Green and Sustainable Solvents for the Recovery of Carboxylic Acids from Aqueous Solution: A Review. [*Journal of Chemical Technology & Biotechnology* \(Wiley\)](#) 2025 (Accepted in Press)
3. Singh N., Patle D. S., **Kumar, S.** Natural Deep Eutectic Liquids as Green Solvents in Intensified Extraction of Bioactive Compounds from Fruit Wastes. [*Environmental Progress and Sustainable Energy*\(John Wiley; IF:2.8\)](#) <https://doi.org/10.1002/ep.14651> 2025 (Accepted).

4. Agrahari, S., Singh N., Bharti B., **Kumar, S.** Medicinal plant ashwagandha in hydroponics: Pioneering greywater remediation using response surface methodology along with plants' physiological and phytochemical attributes for sustainable resource recovery. [*Chemosphere \(Elsevier; IF: 8.1\)*](#) 2025, 376, 144260.
5. Rishi Kumar Verma, Sushil Kumar, Intensification of electrocoagulation treatment of simulated tannery wastewater using rotating electrodes: Parametric, isotherms, kinetic and techno-economic studies. [*Chemical Engineering and Processing - Process Intensification \(Elsevier; IF: 4.3\)*](#) 2025, 209, 110150.
6. Gautam K., Kumar Y., Sonawane S., **Kumar S.** Electrochemical treatment of wastewater containing reactive Blue 4 (RB 4) dye: RSM and ANN optimization, techno-economic analysis and sludge characterization. [*Cleaner Chemical Engineering \(Elsevier; Scopus\)*](#) 2025, 11, 100138.
7. Meena RR., Singh R.M., Soni P., Kumar R., **Kumar S.**, Fluoride Removal using a Rotating Anode Electro-Coagulation Reactor: Parametric Optimization using Response Surface Methodology, Isotherms and Kinetic Studies, Economic Analysis and Sludge Characterization. [*Journal of Environmental Management \(Elsevier; IF: 8.1\)*](#) 2024, 370, 122600.
8. Singh N., Patle D. S., **Kumar, S.** Intensification of extraction of bioactive compounds from pomegranate peel using an ultrasound-microwave assisted extraction approach: Parametric optimization, kinetics and thermodynamics. [*Separation and Purification Technology \(Elsevier\)*](#) 2025, 359, 130681.
9. Agrahari, S., **Kumar, S.** Emerging and Futuristic Phyto-Technologies for Sustainable Wastewater Treatment with Resource Recovery and Economical Aspects. [*Journal of Water Process Engineering \(Elsevier; IF: 6.7\)*](#) 2024, 65, 105753.
10. Jujaru M., Pradhan K., Gaur S., Jain A., Kumar S., Generation of Biosurfactants by *P. aeruginosa* gi |KP163922| on Waste Engine Oil in a Free and Immobilized Cells System. [*The Canadian Journal of Chemical Engineering \(John Wiley; IF: 1.8\)*](#) 2024, 102, 3776–3786.
11. Singh N., Patle D. S., **Kumar, S.** Microwave- and Ultrasonication-Based Intensified and Synergetic Approaches for Extraction of Bioactive Compounds from Pomegranate Peels: Parametric and Kinetic Studies. [*Industrial and Engineering Chemistry Research \(American Chemical Society\)*](#) 2024, 63, 20, 9214–9224.
12. Agrahari, S., **Kumar, S.**, Phytoremediation: A Shift Towards Sustainability for Dairy Wastewater Treatment. [*ChemBioEng Reviews \(John Wiley\)*](#) 2024, 11(1), 115-135.
13. Gautam, A., Chawade, N.S., Kumar, S., Ahmad, Z. and Patle, D.S., Novel ionic liquid-based nano-photocatalyst for microwave-ultrasound intensified biodiesel synthesis. [*Energy Conversion and Management \(Elsevier\)*](#), 2024, 313, 118599.
14. Meena RR., Soni P., **Kumar S.**, Review on Hydrodynamic Simulation and Analysis Using CFD: Electrochemical Reactors and Redox Flow Batteries. [*ChemBioEng Reviews \(John Wiley\)*](#) 2023, 10(5), 670-683.
15. Gautam, A., Khajone, V.B., Bhagat, P.R., **Kumar, S.** and Patle, D.S., Metal-and ionic liquid-based photocatalysts for biodiesel production: a review. [*Environmental Chemistry Letters \(Springer\)*](#), 2023, 21(6), 3105-3126
16. Pandey, S., **Kumar, S.**, Arfin R., Datta D., Katiyar P. Reactive Separation of Gallic Acid using Trioctylamine in Oleyl Alcohol and Dodecane Mixtures: Equilibrium Insights, Modeling and Optimization using RSM and ANN approaches. [*Separation Science and Technology \(Taylor and Francis\)*](#). 2023, 58(3), 473-485.

17. Kumar, S., Ahmad, Z., Patle, D.S. Technological interventions in biomass processing: thematic issue for an international conference "CHEM-CONFLUX²²". *Biomass Conversion and Biorefinery (Springer)* (2023). <https://doi.org/10.1007/s13399-023-04539-5>
18. Dipesh S. Patle, Ahmad Z., Kumar S., Technological interventions for promoting sustainability: selected extended papers from an international conference 'CHEM-CONFLUX²²'. *Environmental Science and Pollution Research (Springer)* 2023, (30) 61523–61525.
19. Kumari, A., Kumar, S., Separation of Iso-Nicotinic acid from aqueous solution using ionic liquids: Screening using COSMO-RS and equilibrium studies. *Chemical Data Collection (Elsevier, Scopus)*. 2023, 44, 101010.
20. Chauhan M. S., Kumar A., Shekhar S., **Kumar, S.** Removal of heavy metal from wastewater using ion exchange with membrane filtration from swarnamukhi river in Tirupati *Materials Today: Proceedings (Elsevier)* 2023, 78, 1-6.
21. Pandey, S., Pal, D., **Kumar, S.**, Reactive extraction of gallic acid using tri-n-octylamine in a biocompatible mixture of modifier and inert solvent: Equilibria and thermodynamics. *Chemical Data Collection (Elsevier)*. 2022, 41, 100908.
22. Srivastava, A., Rani, R., **Kumar, S.** Optimization, kinetics, and thermodynamics aspects in the biodegradation of reactive black 5 (RB5) dye from textile wastewater using isolated bacterial strain, *Bacillus albus* DD1. *Water Science and Technology (IWA)*. 2022, 86 (3), 610–624 doi: 10.2166/wst.2022.212.
23. Kumari, A., Gupta, V., Gaur A., **Kumar, S.** Reactive Separation of Nicotinic Acid from Aqueous Solution using Tri-n-octylamine in Biocompatible Modifier Diluent Mixture: Influencing parameters exploration, mechanism insights, thermodynamics, regeneration of solvents and column design, *Chemical Engineering Processing: Process Intensification (Elsevier)*. 2022, 174, 108896.
24. Srivastava, A., Dangi L. K. **Kumar, S.**, Rani, R. Microbial decolorization of Reactive Black 5 dye by *Bacillus albus* DD1 isolated from textile water effluent: Kinetic, thermodynamics & decolorization mechanism *Heliyon (Elsevier)* 2022, 7, e08834
25. Verma, R. K., Gautam, K., Agrahari, S., **Kumar, S.**, Potential of Electrocoagulation Technology for the Treatment of Tannery Industrial Effluents: A Brief Review, *Chemical and Processing Engineering* 2022, 43 (2), 217–222.
26. Pandey, S., Wasewar K.L., Datta D., **Kumar, S.**, Reactive Extraction of Gallic Acid Using Trioctylamine and Tributyl Phosphate with Natural Oils *Chemical Engineering and Technology (John Wiley)* 2022, 45(3), 1–10.
27. Chellapan S., Datta D., **Kumar S.**, Uslu H. Statistical Modeling and Optimization of Itaconic Acid Reactive Extraction using Response Surface Methodology (RSM) and Artificial Neural Network (ANN) *Chemical Data Collections (Elsevier)* 2022, 37, 100806.
28. Srivastava, A., Rani, R., Patle, D.S., **Kumar, S.** Emerging bioremediation technologies for the treatment of textile wastewater containing synthetic dyes: A comprehensive review", *Journal of Chemical Technology & Biotechnology (Wiley)* 2022, 97, 26–41.
29. Pandey, S., Jaiswal, A., Sohane, A., Patle D.S., Kumar, S. Experimental and Theoretical Equilibrium Insights in the Reactive Extraction of Pimelic Acid with Tri-n-octylamine in Natural Solvents, *Industrial and Engineering Chemistry Research (American Chemical Society)* 2021, 60(49), 18073–18085.
30. Patle, D.S., Zarghami R., Kumar S., Editorial special section: Selected extended papers from an International Conference on Energy and Environmental Technologies for Sustainable Development (CHEM-CONFLUX²⁰) *Chem. Prod. Process Model. (De Gruyter)* 2021, 16(2), 67–68.

31. Gautam, A., Bhagat, P.R., **Kumar, S.**, Patle, D.S., Dry Route Process and Wet Route Process for Algal Biodiesel Production: A Review of Techno-economical Aspects, [*Chemical Engineering Research and Design \(Elsevier\)*](#) 2021, 174, 365-385.
32. **Kumar, S.**, Pandey, S., Wasewar K.L., Namik A., Uslu H., Reactive Extraction as an Intensifying Approach for the Recovery of Organic Acids from Aqueous Solution: A Comprehensive Review on Experimental and Theoretical Studies, [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#) 2021, 66, 4, 1557–1573.
33. Patle D. S., Pandey A., Srivastava, S., Sawarkar, A.N., **Kumar, S.** Ultrasound-intensified biodiesel production from algal biomass: a review. [*Environmental Chemistry Letters \(Springer\)*](#) 2021, 19, 209–229. <https://doi.org/10.1007/s10311-020-01080-z>
34. Pattanayaka, D.S., Pal D., Thakur C., **Kumar S.**, Devnani G.L. Bio-synthesis of iron nanoparticles for environmental remediation: Status till date. [*Materials Today: Proceedings*](#) 2021, 44(2), 3150-3155.
35. Shitanshu Pandey, Sushil Kumar, Gallic acid extraction with mixed aminic extractants dissolved in 1-decanol. [*Journal of Indian Chemical Society \(Elsevier\)*](#) 2020, 97(10a), 1631-1635.
36. Yadav, N., Sharma, S., Joys, J.S., **Kumar, S.** Microwave Assisted Extraction of Bioactive Compounds: A Brief Review. [*Journal of Indian Chemical Society \(Elsevier\)*](#) 2020, 97(10a), 1751-1756.
37. Srivastava, A., Rani, R., **Kumar, S.** Role of biological processes for treatment of textile waste water - A state of art review. [*Journal of Indian Chemical Society \(Elsevier\)*](#) 2020, 97(10a), 1757-1761.
38. Gautam, K., Kamsonlian, S., **Kumar, S.** Decolorization of Reactive Black B from Wastewater by Electro-coagulation: Optimization using Multivariate RSM and ANN. [*Chemical Product and Process Modeling \(De Gruyter\)*](#) 2020, 16(2), 129-144. <https://doi.org/10.1515/cppm-2020-0043>.
39. Dhongde, V. R., De B. S., Wasewar, K. L., Gupta P. **Kumar, S.** Experimental perspective for reactive separation of malonic acid using TBP in natural non-toxic solvents. [*Journal of Industrial and Engineering Chemistry \(Elsevier\)*](#) 2020, 91, 273-284.
40. Pandey S., **Kumar, S.** Reactive extraction of gallic acid from aqueous solution with Tri-n-octylamine in oleyl alcohol: Equilibrium, Thermodynamics and optimization using RSM-rCCD. [*Separation and Purification Technology \(Elsevier\)*](#). 2020, 231, 115904.
41. Gautam, K., Kamsonlian, S., **Kumar, S.** Removal of Reactive Red 120 Dye from Wastewater using Electrocoagulation: Optimization using Multivariate Approach, Economic Analysis and Sludge Characterization. [*Separation Science and Technology \(Taylor and Francis\)*](#). 2020, 55(18), 3412–3426.
42. Gautam, K., **Kumar, S.**, Kamsonlian, S. Decolourisation of Azo Dyes by Electrocoagulation Process with Response Surface Methodology, [*Research Journal of Chemistry and Environment*](#). 2020, 24 (3), 31-40.
43. Gautam, K., **Kumar, S.**, Kamsonlian, S. Decolourization of Reactive Dye from Aqueous Solution using Electrocoagulation: Kinetics and Isothermal Study. [*Zeitschrift für Physikalische Chemie \(De Gruyter\)*](#) 2019, 233(10): 1447–1468, DOI: 10.1515/zpch-2017-1044.
44. Kumar, H., Gaur A., **Kumar, S.**, Park J.-W. Development of silver nanoparticles-loaded CMC hydrogel using bamboo as a raw material for special medical applications. [*Chemical Papers \(Springer\)*](#). 2019, 73, 953–964.
45. Kumari, A., Gaur A., Uslu, H., **Kumar, S.** Reactive separation of p-nitro phenol (PNP) from aqueous solution using tri-n-butyl phosphate: equilibrium and COSMO-RS studies. [*Separation Science and Technology \(Taylor and Francis\)*](#). 2019, 54(16), 2738-2748.
46. Jain, T., **Kumar, S.**, Dutta, P.K. Carboxymethylchitin Nanocarrier (CMCNC): A Novel Therapeutic Formulation for Drug Release. [*Polymer-Plastics Technology and Engineering \(Taylor and Francis\)*](#). 2019, 58 (1): 55-69.

47. Patle D. S., Sharma S., Gadhamsetti, A. P., Balinge, K. R., Bhagat, P. R., Pandit, S., **Kumar, S.** Ultrasonication-Assisted and Benzimidazolium-Based Brønsted Acid Ionic Liquid-Catalyzed Transesterification of Castor Oil. [*ACS Omega \(American Chemical Society\)*](#) 2018, 3, 15455–15463.
48. Kumari, A., Gaur A., Wasewar, K.L., **Kumar, S.** Modeling and Optimization of Reactive Extraction of Isonicotinic Acid Using Tri-n-octylamine in Biocompatible Diluents Mixture: Response Surface Methodology and Regeneration of Solvents. [*Industrial and Engineering Chemistry Research \(American Chemical Society\)*](#) 2018, 57 (37): 12485–12493.
49. Pandey Shitanshu, **Kumar, S.** Reactive Extraction of Gallic Acid using Aminic and Phosphoric Extractants Dissolved in Different Diluents: Solvent's Polarity and Column Design [*Industrial and Engineering Chemistry Research \(American Chemical Society\)*](#) 2018, 57 (8): 2976–2987.
50. Singh A., Lavkush, Kureel, A.K., Dutta, P.K., **Kumar, S.**, Rai, A.K. Curcumin loaded Chitin-Glucan Quercetin Conjugate: Synthesis, Characterization, Antioxidant, In Vitro Release Study and Anticancer Activity. [*International Journal of Biological Macromolecules \(Elsevier\)*](#) 2018, 110: 234-244.
51. Ghosh, A., Datta, D., Uslu, H., Bamufleh, H. S., **Kumar, S.**, Separation of copper ion (Cu²⁺) from aqueous solution using tri n butyl phosphate and di 2 ethylhexyl phosphoric acid as extractants. [*Journal of Molecular Liquids \(Elsevier\)*](#) (2018) 258, 147–154
52. Pandey, S., Chomal, N., Kamsonlian S., **Kumar S.** Theoretical and experimental studies on extraction of carboxylic acids from aqueous solution using ionic liquids [*International Journal of Chemical Engineering and Applications \(IACSIT\)*](#). 2018, 9(1), 20-25.
53. Datta, D., Babu, B.V., **Kumar, S.** Equilibrium and Thermodynamic Studies on Reactive Extraction of Nicotinic Acid using a Biocompatible Extraction System [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#) 2017, 62 (10): 3431–3436.
54. Datta, D., Marti, M.E., Pal, D., **Kumar, S.** Equilibrium Study on the Extraction of Levulinic Acid from Aqueous Solution with Aliquat 336 Dissolved in Different Diluents: Solvent's Polarity Effect and Column Design. [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#). 2017, 62 (1), 3–10.
55. Datta, D., Marti, M.E., Uslu, H., **Kumar, S.** Extraction of Levulinic Acid Using Tri-n-butyl phosphate and Tri-n-octylamine in 1-Octanol: Column Design [*Journal of the Taiwan Institute of Chemical Engineers \(Elsevier\)*](#) 2016, 66: 407-413.
56. Jain, T., Kumar, S., **Dutta, P.K.** Dibutylchitin Nanoparticles as Novel Drug Carrier. [*International Journal of Biological Macromolecules*](#) 2016, 82:1011-1017.
57. **Kumar, S.**, Kumari, A., Pandey, S., Gaur, A. Role of reactive extraction in removal of phenol from wastewater. [*Emerging Trends in Chemical Engineering \(STM Journals\)*](#), 2016 3(1), 19-25.
58. Gupta, M.K., Srivastava, R.K., **Kumar, S.**, Gupta, S., Nahak B. Mechanical and Water Absorption Properties of Hybrid Sisal/Glass Fibre Reinforced Epoxy Composite. [*American Journal of Polymer Science & Engineering*](#) 2015, 3:208-219.
59. Datta, D., Uslu, H., Kumar, S. Adsorptive Separation of Cu²⁺ from an Aqueous Solution Using Trioctylamine Supported Montmorillonite. *Journal of Chemical & Engineering Data (American Chemical Society, IF: 2.6)* 2015, 60(11), 3193–3200.
60. Uslu, H., Datta, D., Kumar, S. Investigation on the Reactive Extraction of Glyoxylic Acid by Amberlite-LA2 in Alcoholic Diluents. *Separation Science and Technology (Taylor and Francis, IF: 2.79)*. 2015, 50, 2658–2667.
61. Datta, D., **Kumar, S.** Reactive Extraction of Picolinic Acid using Tri-n-Octylamine Dissolved in Different Diluents: Effect of Solvent Polarity [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#). 2015, 60(9), 2709–2716.

62. Jain, T., **Kumar, S.**, Dutta, P.K. Theranostics: A Way to Modern Diagnostics and the Role of Chitosan. [*Journal of Molecular and Genetic Medicine*](#). 9:159, 2015
63. **Kumar, S.**, Uslu, H., Datta, D., Rarotra, S., Rajput, K. Investigation of Extraction of 4-Oxopentanoic Acid by N,N-Dioctyloctan-1-amine in Different Diluents: Equilibrium Study. [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#). 2015, 60, 1447–1453.
64. Datta, D., **Kumar, S.**, Uslu, H. Status of the Reactive Extraction as a Method of Separation. [*Journal of Chemistry \(Hindawi Publishers\)*](#) 2015, Article ID 853789, 1-16.
65. Jain, T., **Kumar, S.**, Dutta, P.K. Chitosan in the Light of Nanobiotechnology: A Mini Review. [*Journal of Biomedical Technology and Research*](#). 2015, 1-7.
66. Datta, D., Uslu, H., **Kumar, S.** Intensification of Picolinic Acid Extraction with Tri-n-Butylphosphate and Tri-n-Octylamine in Three Different Diluents. [*Chemical Engineering Research and Design \(Elsevier\)*](#). 2015, 95, 105-112.
67. Datta, D., **Kumar, S.** Modeling using Response Surface Methodology and Optimization using Differential Evolution of Reactive Extraction of Glycolic Acid. [*Chemical Engineering Communications \(Taylor and Francis\)*](#). 2015, 202(1), 59-69.
68. Uslu H., Datta, D., **Kumar, S.** Reactive Extraction of Oxoethanoic Acid (Glyoxylic Acid) Using Amberlite-LA2 in Different Diluents. [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#). 2014, 59 (8), 2623–2629.
69. Datta, D., **Kumar, S.** Reactive Extraction of Pyridine-2-Carboxylic Acid (Picolinic Acid) using Non-toxic Extractant and Diluent Systems. [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#). 2014, 59(5), 1540–1548.
70. **Kumar, S.**, Kamsonlian, S., Chomal, N., Equilibrium Study on Reactive Extraction of Nicotinic Acid from Aqueous Solution. [*International Journal of Chemical Engineering and Applications \(IACSIT\)*](#). 2014, 5 (6), 506-510.
71. Sahai, N., Jain, T., **Kumar, S.**, Dutta, P.K. Chitosan based Porous Scaffolds by Computer Aided Tissue Engineering. [*Asian Chitin J.*](#) 10, 11-18, 2014.
72. Datta, D., **Kumar, S.** Equilibrium and Kinetic on Reactive Extraction of Nicotinic Acid with Tri-n-Octylamine Dissolved in MIBK. [*Industrial and Engineering Chemistry Research \(American Chemical Society\)*](#). 2013, 52 (41), 14680–14686.
73. Kumar, P., Rao, R., Chand, S., **Kumar, S.**, Wasewar, K.L., Yoo, Ch. K. Adsorption of lead from aqueous solution onto coir-pith activated carbon. [*Desalination and Water Treatment \(Taylor and Francis\)*](#). 2013, 51, 2529–2535.
74. Datta, D., **Kumar, S.** Reactive Extraction of Pyridine Carboxylic Acids with N, N-Dioctyloctan-1-amine Dissolved in Five Different Diluents. [*Separation Science and Technology \(Taylor and Francis\)*](#). 2013, 48(6), 898-908.
75. Datta, D., **Kumar, S.** Intensification of Recovery of Formic Acid from Aqueous Stream using Reactive Extraction with N, N-dioctyloctan-1-amine: Effect of Diluent and Temperature. [*Chemical Engineering Communications \(Taylor and Francis\)*](#). 2013, 200(5), 678-700
76. **Kumar, S.**, Babu, B.V. Investigations of Biocompatible Systems for Reactive Extraction of Propionic Acid Using Aminic Extractants. [*Biotechnology and Bioprocess Engineering \(Springer\)*](#). 2012, 17, 1252-1260
77. Datta, D., **Kumar, S.**, Wasewar K.L., Babu B.V. Comparative Study on Reactive Extraction of Picolinic Acid with Six Different Extractants (Phosphoric and Aminic) Dissolved in Two Different Diluents (Benzene and Decane-1-ol). [*Separation Science and Technology \(Taylor and Francis\)*](#). 2012, 47(7), 997-1005.
78. Datta, D., **Kumar, S.**, Modeling and Optimization of Recovery Process of Glycolic Acid using Reactive Extraction. [*International Journal of Chemical Engineering and Applications \(IACSIT\)*](#). 2012, 3(2), 141-146.

79. **Kumar, S.,** Datta, D., Babu, B.V. Differential Evaluation Approach for Reactive Extraction of Propionic Acid using Tri-*n*-Butyl Phosphate (TBP) in Kerosene and 1-Decanol. [*Material and Manufacturing Processes \(Taylor and Francis\)*](#). 2011, 26, 1222–1228.
80. Datta, D., **Kumar, S.,** Reactive Extraction of Benzoic Acid and Pyridine-3-Carboxylic Acid using Organophosphoric- and Aminic Extractants Dissolved in Binary Diluent Mixtures. [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#). 2011, 56(8), 3367–3375.
81. **Kumar, S.,** Datta, D., Babu, B.V. Estimation of Equilibrium Parameters using Differential Evolution in Reactive Extraction of Propionic Acid by Tri-*n*-Butyl Phosphate Dissolved in *n*-Decane & 1-Decanol. [*Chemical Engineering Processing: Process Intensification \(Elsevier\)*](#). 2011, 50(7), 614-622.
82. Datta, D., **Kumar, S.** Reactive Extraction of 2-Methylidenebutanedioic Acid with *N, N*-Dioctyloctan-1-amine Dissolved in Six Different Diluents: Experimental and Theoretical Equilibrium Studies at (298 ± 1) K. [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#). 2011, 56(5), 2574-2582.
83. Datta, D., **Kumar, S.** Reactive Extraction of Glycolic Acid using Tri-*n*-Butylphosphate and Tri-*n*-Octylamine in Six Different Diluents: Experimental Data and Theoretical Predictions. [*Industrial and Engineering Chemistry Research \(American Chemical Society\)*](#). 2011, 50, 3041–3048.
84. **Kumar, S.,** Datta, D., Babu, B.V. Experimental Data and Theoretical (Chemodel Using the Differential Evolution Approach and Linear Solvation Energy Relationship Model) Predictions on Reactive Extraction of Monocarboxylic Acids Using Tri-*n*-octylamine. [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#). 2010, 55, 4290–4300.
85. **Kumar, S.,** Babu, B.V. Extraction of Pyridine-3-Carboxylic Acid Using 1-Dioctylphosphoryloctane (TOPO) with Different Diluents: Equilibrium Studies. [*Journal of Chemical & Engineering Data \(American Chemical Society\)*](#). 2009, 54, 2669-2677.
86. **Kumar, S.,** Babu, B.V. Process Intensification of Nicotinic Acid Production via Enzymatic Conversion using Reactive Extraction as Separation Technique. [*Chemical and Biochemical Engineering Quarterly \(Croatian Society of Chemical Engineers\)*](#). 2009, 23, 367-376.
87. **Kumar, S.,** Wasewar, K.L., Babu, B.V. Intensification of Nicotinic Acid Separation using Organophosphorus Solvating Extractants: Extraction Equilibria. [*Chemical Engineering and Technology \(Wiley Interscience\)*](#). 2008, 31, 1584-1590.
88. **Kumar, S.,** Babu, B.V. Process Intensification for Separation of Carboxylic Acids from Fermentation Broths using Reactive Extraction. [*Journal on Future Engineering and Technology \(i-manager publications\)*](#) 2008, 3, 21-27.
89. **Kumar, S.,** Babu, B.V. Propionic Acid Production via Fermentation Route using Renewable Sources. [*Chemical Industry Digest \(Blockdale publications\)*](#). 2008, 9, 76-81.

Papers in Conference Proceedings: 77 (International) + 16 (National)

International Conferences Proceedings (Abroad)

1. Agrahari, S., Singh, V. P., **Kumar, S.** Potential of Edible Plants in Wastewater Phytoremediation through Hydroponics Technology, International Conference on Sustainable Energy and Green Technology (SEGT -2023), **Ho Chi Minh City, Vietnam** December 10-13, 2023.
2. Gautam, A., Pandey, A., Balinge, K.R., Khajone, V.B., Bhagat, P.R., Ahmad, Z., **Kumar, S.** and Patle, D.S., Optimization, kinetics and thermodynamics of ultrasound assisted and ionic liquid catalyzed in-situ biodiesel synthesis from wet microalgae. AIP Publishing, 2023, Vol. 2785(1).
3. Gautam A., **Kumar S.,** Patle, D.S. Optimization, kinetics and thermodynamics of ultrasound assisted and ionic liquid catalyzed in-situ biodiesel synthesis from wet microalgae. 7th International Conference on Environment 2021 organized by School of Chemical Engineering **Universiti Sains Malaysia**, 6-7th October 2021.

4. Pandey, S., Chomal, N., Kamsonlian S., **Kumar, S.** Theoretical and experimental studies on extraction of carboxylic acids from aqueous solution using ionic liquids, International Conference on Chemistry and Chemical Engineering (ICCCE-2017), **Barcelona, Spain**, July 12-14, 2017.
5. Jain, T., **Kumar, S.**, Dutta, P.K. 5-Fu (Fluorouracil) loaded sulfated chitin nanoparticles for drug delivery: Preparation, characterization & evaluation, 2015-AIChE Annual Meeting, Salt Lake City (UT) **USA**, November 08-13, 2015.
6. Jain, T., **Kumar, S.**, Dutta, P.K. 5-Fluorouracil loaded oxychitin nanoparticles for drug delivery, 4th Nano today Conference, Dubai, December 6-10, 2015.
7. Chomal, N., Kumar, A., **Kumar, S.** Investigation of Ionic Liquid Systems for Extraction of Benzoic Acid from Hydrocarbons, 2014-AIChE Annual Meeting, Atlanta (GA) **USA**, November 16-21, 2014.
8. Prakash, N., **Kumar, S.**, Sharma, A. K. Kinetic Modeling of Propylene Polymerization with Me₂Si[Ind]₂ZrCl₂/MAO Catalyst System, 2014-AIChE Annual Meeting, Atlanta (GA) **USA**, November 16-21, 2014.
9. **Kumar, S.**, Kamsonlian, S., Chomal, N., Equilibrium Study on Reactive Extraction of Nicotinic Acid from Aqueous Solution. 3rd International Conference on Chemical and Process Engineering (ICCPE 2014), **Bangkok, Thailand**, June 9-11, 2014.
10. **Kumar, S.**, Chomal, N., Kumar, A. Investigations of Use of Ionic Liquid in Extraction of Picolinic Acid from Aqueous Solutions. 2013 Annual Meeting of AIChE, **San Francisco, CA, USA**, November 3-8, 2013.
11. Datta, D., **Kumar, S.**, Central Composite Design for the Modeling of the Glycolic Acid Reactive Extraction. 2013 Annual Meeting of AIChE, San Francisco, CA, USA, November 3-8, 2013.
12. **Kumar, S.**, Datta, D., Babu, B.V. Reactive Extraction of Nicotinic Acid Using Tri-*n*-Octylphosphine Oxide (TOPO) Dissolved in a Binary Diluent Mixture. Proceedings of 2012 Annual Meeting of AIChE, Pittsburgh, PA, USA, October 28- November 2, 2012.
13. Datta, D., **Kumar, S.**, Extraction and Back-Extraction Studies of Picolinic Acid Using Tri-*n*-Octylamine Dissolved in 1-Decanol. Proceedings of 2012 Annual Meeting of AIChE, Pittsburgh, PA, USA, October 28- November 2, 2012.
14. Prakash, N., **Kumar, S.**, Sharma, A.K. Modeling and Kinetic Parameter Estimation of Ethylene Polymerization with Silica Supported Dimethylsilylene Bis(η^5 -inden-1-ylidene)Zirconium Dichloride Catalyst Using Differential Evolution Approach. Proceedings of 2012 Annual Meeting of AIChE, Pittsburgh, PA, USA, October 28- November 2, 2012.
15. Datta, D., **Kumar, S.** Statistical Modeling and Differential Evaluation Optimization of Reactive Extraction of Glycolic Acid. 2nd International Conference on Biology, Environment and Chemistry (ICBEC 2011), Dubai, UAE, December 28-30, 2011.
16. **Kumar, S.** and Babu, B.V. Equilibrium and Kinetic Studies on Reactive Extraction of Propionic Acid using Tri-*n*-Octylamine (TOA) Dissolved in Cyclohexane+1Decanol (1:1v/v). Proceedings of 2011 Annual Meeting of AIChE, Minneapolis, MN, USA, October 16-21, 2011.
17. Datta, D., **Kumar, S.** Separation of Nicotinic Acid from Aqueous Solution by Reactive Extraction using Tri-*n*-butyl phosphate and Tri-*n*-Octyl-amine in Decane-1-ol + Cyclohexane (1:1 v/v). Proceedings of 17th Regional Symposium on Chemical Engineering (RSCE2010), Queen Sirikit National Convention Center, Bangkok, **Thailand**, November 22-23, 2010.
18. **Kumar, S.** and Babu, B.V. Reactive Extraction of Nicotinic Acid using Tri-*n*-Octylamine (TOA) Dissolved in Different Diluents. Proceedings of 2010 Annual Meeting of AIChE, Salt Convention Centre, Salt Lake City, UT, **USA**, November 7-12, 2010.
19. **Kumar, S.**, Gupta, K., Babu, B.V. Recovery of Nicotinic Acid from Aqueous Solution using Reactive Extraction with Tri-*n*-Octyl Phosphine Oxide (TOPO) in Kerosene. Proceedings of 2009-Annual Meeting of AIChE, Gaylord Opryland Hotel, Nashville, TN, **USA**, November 8-13, 2009.

International Conferences Proceedings (in India)

1. Sakshi Agrahari, Dr. Sushil Kumar, Hydroponics Technology: An Innovative Approach for Urban & Rural Wastewater Management, 55th Annual IWWA Convention 2023, 20-22 Jan, 2023, Pune.
2. Swati Gupta, Dr. Sushil Kumar, Available and Potential Remediation Techniques for Hospital Wastewater: A Short Review, 55th Annual IWWA Convention 2023, 20-22 Jan, 2023, Pune.
3. Anju Kumari and Kumar, S., Extraction of Nicotinic and Iso-nicotinic acid from Aqueous Solution Using Ionic Liquid Proceedings, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22) at MNNIT Allahabad, April 14-16, 2022.
4. Neetu Singh, Sushil Kumar, Dipesh S. Patle, Green Extraction Technique of Phenolic Components from Fruits Waste by Microwave and Ultrasound Technology: A Review, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22) at MNNIT Allahabad, April 14-16, 2022.
5. Aparna Gautam, Sushil Kumar, Dipesh S Patle, State of the Art of Photocatalyst for Biodiesel Production: A Review, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22) at MNNIT Allahabad, April 14-16, 2022.
6. Rishi Kumar, Sushil Kumar, Treatment of Synthetic Tannery Wastewater using Electrocoagulation in a Rotating Electrode Reactor, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22) at MNNIT Allahabad, April 14-16, 2022.
7. Sakshi Agrahari, Sushil Kumar, Sustainable Techniques for Dairy Wastewater Treatment, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22) at MNNIT Allahabad, April 14-16, 2022.
8. Ankita Srivastava, Radha Rani, Sushil Kumar, Removal of Reactive Black 5 Dye Using Mixed Microbial Culture Immobilized at Adsorbent Saw Dust: Batch and Fixed-Bed Column Studies, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22) at MNNIT Allahabad, April 14-16, 2022.
9. Shitanshu Pandey and Sushil Kumar, Reactive Extraction of Gallic Acid from Fermentation Broth Using Tri-N- Octylamine in 1-Decanol: Equilibrium, Thermodynamic and Kinetics Studies, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22) at MNNIT Allahabad, April 14-16, 2022.
10. Ram Raj Meena, Rishi Kumar, Pramod Soni, Sushil Kumar, Hydrodynamic Simulation of Electrochemical Reactor using CFD, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22) at MNNIT Allahabad, April 14-16, 2022.
11. Shikha Kumari, Sushil Kumar, Potential of Deep Eutectic Solvents for the Extraction of Organic Acids from Aqueous Solutions, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX22) at MNNIT Allahabad, April 14-16, 2022.
12. Mona Singh, Parul Katiyar, **Sushil Kumar**, Electrochemical Technique for Treating Wastewater, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX²²) at MNNIT Allahabad, April 14-16, 2022.
13. Fiona Mary Antony, Kailas L Wasewar, Diwakar Z Shende, **Sushil Kumar**, Dharm Pal, Hasan Uslu, The Sustainable Approach of Process Intensification in Bio Refinery through Reactive Extraction Coupled with Regeneration for Recovery of Protocatechuic Acid, International Conference on Technological Interventions for Sustainability (CHEM-CONFLUX²²) at MNNIT Allahabad, April 14-16, 2022.
14. Gautam K., Sonawane, S., Kamsonlian, S., **Kumar, S.**, Multivariate Optimization, Technoeconomic Analysis and Sludge Characterization for Electrochemical Treatment of Wastewater containing Reactive Blue 4 (RB4) Dye, International Chemical Engineering Conference 2021 (ICheEC 2021), NIT Jalandhar, September 17-19, 2021.

15. Pandey, S., Pal, D., **Kumar, S.**, Experimental and Theoretical Perspectives in Reactive Extraction of Gallic Acid using Aminic and Phosphoric Extractants Dissolved in Natural Oils, International Chemical Engineering Conference 2021 (ICheEC 2021), NIT Jalandhar, September 17-19, 2021.
16. Arfin, R.M. **Kumar, S.**, Katiyar P., Natural Deep Eutectic Solvents, an Emerging Class of Sustainable and Green Solvents for Extraction of Organic Acids from Aqueous Solution: A Comprehensive Review, International Conference on Advances in Sustainable Research for Energy and Environmental Management (ASREEM-2021) at SVNIT Surat, August 6-8, 2021.
17. Srivastava, A., Arfin, R.M., Radharani, M., **Kumar, S.**, Microbial Decolorization and COD removal of azo and anthraquinone mixed reactive dyes using newly isolated mixed bacterial culture: An Optimization Approach Using Response Surface Methodology (RSM) and Artificial Neural Network (ANN,) International Conference on Advances in Sustainable Research for Energy and Environmental Management (ASREEM-2021) at SVNIT Surat, August 6-8, 2021.
18. Mishra T., Mungray A.K., Maurya D. P., **Kumar, S.**, Emerging technologies for treatment of tannery wastewater: A state of art review, International Conference on Advances in Sustainable Research for Energy and Environmental Management (ASREEM-2021) at SVNIT Surat, August 6-8, 2021.
19. Pandey, S., Pal, D., **Kumar, S.**, Reactive extraction of gallic acid with tri-n-octylamine in a biocompatible mixture of modifier and inert solvent: Equilibria, reaction stoichiometry and thermodynamics, International Conference on Reaction Engineering (ICRE 2021) at NIT Raipur, May 7-8, 2021.
20. Gautam K., Verma, R.K., Kamsonlian, S., **Kumar, S.**, Optimization of Reactive Black B Decolourization by Electrocoagulation using RSM and ANN, International Conference on Energy and Environmental Technologies for Sustainable Development (CHEM-CONFLUX²⁰) at MNNIT Allahabad, February 14-16, 2020.
21. Arvind Jaiswal, Shitanshu Pandey, Dipesh S. Patle and Sushil Kumar, Reactive Extraction of Pimelic Acid Using TOA in a Biocompatible Medium- Experimental and Mathematical Modeling, International Conference on Energy and Environmental Technologies for Sustainable Development (CHEM-CONFLUX²⁰) at MNNIT Allahabad, February 14-16, 2020.
22. Ankita Srivastava, Sushil Kumar, Radha Rani M, Bioremediation applications for removal of reactive dyes from waste water –Emerging techniques & Future scopes, International Conference on Energy and Environmental Technologies for Sustainable Development (CHEM-CONFLUX²⁰) at MNNIT Allahabad, February 14-16, 2020.
23. Pandey, S., **Kumar, S.**, Synergistic Extraction of Gallic Acid with Two Different Extractants Tri-n-octylamine and Aliquat-336 Dissolved in 1-Decanol, International Conference on Energy and Environmental Technologies for Sustainable Development (CHEM-CONFLUX²⁰) at MNNIT Allahabad, February 14-16, 2020.
24. Srivastava, A., Dangi, L.K. Radha Rani M., **Kumar, S.**, Decolorization of Azo dye Reactive Black 5 by Bacillus Sp., LD2 isolated from textile industry effluent, 72nd Annual Session of Indian Institute of Chemical Engineers, CHEMCON–2019 at IIT Delhi, December 16-19, 2019.
25. Verma, R.K., Jain, A., Gautam K., **Kumar, S.**, Decolorization of Reactive Blue 4 using Airlift Electrocoagulation Reactor: Effect of Process Parameters and Economic Analysis, 72nd Annual Session of Indian Institute of Chemical Engineers, CHEMCON–2019 at IIT Delhi, December 16-19, 2019.
26. Pandey, S., Rusia, M., Kumari A., **Kumar, S.**, Statistical Optimization of Gallic Acid Extraction from Aqueous Waste Stream Using Tri-n-Octylamine (TOA) in Biocompatible Diluents, Technoscape – 2018 at VIT Vallore, September 06-08, 2018 (Accepted).

27. **Kumar, S.**, Saxena D., Patle D., Potential Applications of Chitin/Chitosan based Nanomaterials for Wastewater Treatment: State of Art Review, Technoscape – 2018 at VIT Vallore, September 06-08, 2018 (Accepted).
28. Gautam, K., Kamsonlian, S., **Kumar, S.**, RSM with BBD Approach for Optimization of Electrocoagulation Process to Remove Reactive Black 5 Dye from Wastewater: Isothermal and Kinetics Study with Economical Analysis, Technoscape – 2018 at VIT Vallore, September 06-08, 2018 (Accepted).
29. **Kumar, S.**, Singh, S., Jain, T., Dutta, P.K. Aminoethylchitin as Nano Drug Carrier: Preparation, Characterization and Drug Release, International Conference on Nanomaterials and Nanotechnology (ICNANO-2017), at VBRI Allahabad (UP), March 01-03, 2017.
30. Kumari, A., Gaur, A., **Kumar, S.** Reactive Separation of p-Nitro Phenol (PNP) from Aqueous Solution with Tri-butyl phosphate: Equilibrium Study, 69th annual Session of IICChE, (CHEMCON 2016) at Chennai (TN), 27-30th, December 2016.
31. Rusia, M., Pandey, S., Chomal N., **Kumar, S.** Investigation of ionic liquids for extraction of benzoic acid from benzene and cyclohexane, 69th annual Session of IICChE, (CHEMCON 2016) at Chennai (TN), 27-30th, December 2016.
32. Gautam, K., Kamsonlian, S., **Kumar, S.** Investigations on removal of reactive black B dye from aqueous solution using electrocoagulation, 69th annual Session of IICChE, (CHEMCON 2016) at Chennai (TN), 27-30th, December 2016.
33. Datta, D., **Kumar, S.**, Chandra A. Investigation of Extraction of Nicotinic Acid using TBP and TOA Dissolved in a Binary Diluent Mixture, Proceedings of 67th Annual Session of IICChE (CHEMCON-2014), Punjab University, Chandigarh during 27-30 December, 2014.
34. **Kumar, S.**, Sheth, P.N., Babu, B.V. Reactive Extraction of Nicotinic Acid from Aqueous Solution: Equilibrium and Kinetic Study. Proceedings of International Conference on Advances in Chemical Engineering (ICACE-2014), Kollam, Kerala, October, 16-18, 2014, Elsevier Publishers.
35. Prakash, N, **Kumar, S.** Sharma, A.K. Metallocene Catalyzed Propylene Polymerization: Modeling, Simulation and Parameter Estimation using Differential Evolution Approach. Proceedings of 66th Annual Session of IICChE (CHEMCON-2013), ICT, Mumbai during 27-30 December, 2013.
36. Chomal, N., **Kumar, S.**, Kumar A. Ionic Liquids for Extraction of Amino Acids from Aqueous Solution. Proceedings of 65th Annual Session of IICChE (CHEMCON-2012), National Institute of Technology, Jalandhar, December 27-30, 2012.
37. Thakur, S., **Kumar, S.**, Predictions of Liquid - Liquid Equilibria of Aliphatics + Aromatics + Ionic Liquids. Proceedings of 65th Annual Session of IICChE (CHEMCON-2012), National Institute of Technology, Jalandhar, December 27-30, 2012.
38. **Kumar, S.**, Datta, D., Chomal, N., Zade, S. Equilibrium Studies on Reactive Extraction of Itaconic Acid with Tri-n-Butylphosphate: Effect of Diluent. Proceedings of 64th Annual Session of IICChE (CHEMCON-2011), M S Ramaiah Institute of Technology, Bangalore, December 27-29, 2011.
39. Datta, D., Kusuma, R., **Kumar, S.** Reactive Extraction of Itaconic Acid with Tri-n-Octylamine Dissolved in Active and Inactive Diluent Mixtures. Proceedings of 64th Annual Session of IICChE (CHEMCON-2011), M S Ramaiah Institute of Technology, Bangalore, December 27-29, 2011.
40. **Kumar, S.**, Sheth, P.N., Suraj, K., Zade, S. Ionic Liquids as Green Solvents for the Extraction of Organic Compounds, Metals and Bio-molecules: A Brief Review. International Conference on Sustainable Manufacturing (ICSM-2011). Birla Institute of Technology and Science (BITS), Pilani, November 10-12, 2011.
41. Sheth, P.N., **Kumar, S.** Sustainable Manufacturing and Recovery of Chemicals from Bio-oil generated from Jatrapha Residue Cake: A Brief Review. International Conference on Sustainable Manufacturing (ICSM-2011). Birla Institute of Technology and Science (BITS), Pilani, November 10-12, 2011.

42. Datta, D., **Kumar, S.** Reactive Extraction of Nicotinic Acid Using Tri-n-Octylamine and Aliquat-336 Dissolved in Sunflower Oil as a Non-toxic Diluent. International Conference on Sustainable Manufacturing (ICSM-2011). Birla Institute of Technology and Science (BITS), Pilani, November 10-12, 2011.
43. Datta, D., **Kumar, S.** Reactive Extraction of Picolinic Acid with Tri-n-Octylamine Dissolved in Petroleum Ether, MIBK and Iso-amyl Alcohol. International Congress of Environmental Research (ICER-2011), Sardar Vallabhbhai National Institute of Technology (SVNIT), SURAT, December 15-17, 2011.
44. **Kumar, S.**, Mavely R.T., Babu, B.V. Reactive Extraction of Carboxylic Acids (Butyric-, Lactic-, Tartaric-, Itaconic- Succinic- and Citric Acids) using Tri-n-Butylphosphate (TBP) Dissolved in 1-Dodecanol and n-Octane (1:1 v/v). Proceedings of Recent Advances in Chemical Engineering and Technology (RACET-2011), Annamalai University, Kochin, March 10-12, 2011.
45. **Kumar, S.**, Chomal N. Recovery of Itaconic Acid from Aqueous Solution using Reactive Extraction with Tri-n-Butylphosphate (TBP) in Dichloromethane (DCM). Proceedings of Recent Advances in Chemical Engineering and Technology (RACET-2011), Annamalai University, Kochin, March 10-12, 2011.
46. Datta, D., **Kumar, S.** Reactive Extraction of Pyridine-4-Carboxylic (iso-Nicotinic) Acid with Tri-n-Butyl Phosphate and Tri-n-Octylamine Dissolved in Benzyl Alcohol. Proceedings of Advances in Chemical Engineering (AChemE 2011), Department of Chemical Engineering, Thapar University, February 27-28, 2011.
47. Datta, D., **Kumar, S.** Reactive Extraction of Itaconic Acid using Tri-Octylamine (TOA) Dissolved in Different Diluents. Proceedings of International Symposium & 62nd Annual Session of IChE (CHEMCON-2010), Annamalai University, Annamalaiagar, December 27-29, 2010.
48. **Kumar, S.**, Babu, B.V. Influence of Temperature on Reactive Extraction of Propionic Acid using Tri-n-butyl Phosphate (TBP) dissolved in Inert Diluents and 1-Decanol. Proceedings of International Symposium & 62nd Annual Session of IChE in association with International Partners (CHEMCON-2009), Andhra University, Visakhapatnam, December 27-30, 2009.
49. Datta, D., **Kumar, S.**, Babu B.V. Intensification of Propionic Acid Separation from Aqueous Solution using Reactive Extraction with Tri-n-butyl Phosphate (TBP) Dissolved in n-Decane and 1-Decanol. Proceedings of International Conference on Separation Processes (ICSP-2009), IT-BHU, Varanasi, October 20-22, 2009 pp. 306-315.
50. **Kumar, S.**, Babu, B.V. Reactive Extraction of Propionic Acid with Aliquat 336 dissolved in 1-Decanol and n-Dodecane. Proceedings of International Symposium & 61st Annual Session of IChE in association with International Partners (CHEMCON-2008), Panjab University, Chandigarh, December 27-30, 2008.
51. **Kumar, S.**, Babu, B.V. Separation of Carboxylic Acids from Waste Water via Reactive Extraction. Proceedings of International Convention of Water Resources Development and Management (ICWRDM-2008), BITS-Pilani, October 23-26, 2008.
52. **Kumar, S.**, Babu, B.V. Lactic Acid: A Renewable Resource for Biopolymers. Proceedings of Asian Polymer Association's International Conference on Advances in Polymer Science & Technology (Poly-2008), India Habitat Centre, New Delhi, January 28-31, 2008.
53. **Kumar, S.**, Wasewar, K.L., Babu, B.V. Recovery of Propionic Acid using Reactive Extraction. Proceedings of International Symposium & 59th Annual Session of IChE in association with International Partners (CHEMCON-2006), GNFC Complex, Bharuch, December 27-30, 2006.
54. **Kumar, S.**, Vibhuti, Wasewar, K.L., Babu, B.V. Intensification of Recovery of Nicotinic Acid using Reactive Extraction: Equilibrium Study. Proceedings of International Symposium & 59th Annual Session of IChE in association with International Partners (CHEMCON-2006), GNFC Complex, Bharuch, December 27-30, 2006.

55. Iyer, P., Rangan, M., Sunita, S.S., **Kumar, S.**, Wasewer, K. L. Intensification of Propionic Acid Recovery using Tri-Octylamine in Hexanol: Equilibrium study. Proceedings of International Symposium & 59th Annual Session of IChE in association with International Partners (CHEMCON-2006), GNFC Complex, Bharuch, December 27-30, 2006.
56. **Kumar, S.**, Wasewer, K. L. Biopolymers: How Safe to the Environment?. Proceedings of International Congress of Chemistry and Environment (ICCE – 2005), Indore, India, December 24-26, 2005
57. **Kumar, S.**, Katiyar, V., Sudha, Y., Khanna, A. HDPE Polymerization with Metallocene Catalyst and Cocatalysts. Proceedings of International Conference on Chemical Engineering (ICChE- 2003), BUET, Dhaka, Bangladesh December 29-30, 2003.

National Conferences

1. Patle, D., Saxena, D., Srivatava, A. **Kumar, S.** Wastewater Treatment using Nano-Adsorbents based on Chitin/Chitosan Derivatives: A Review, National Conference on Industrial Applications of Nanoscience & Nanotechnology at MNNIT Allahabad, November 15-16, 2019.
2. Jain, T., **Kumar, S.**, Dutta, P.K. 5-Fluorouracil loaded dibutylchitin nanoparticles for drug delivery, National Seminar on "Recent Advances in Polymer Science and Technology, organized by Prof Sukumar Maiti Polymer Award Foundation (PSMPAF) in collaboration with the Department of chemistry, Viswa Bharti University, Shantiniketan, West Bengal, Feb. 14-15, 2015.
3. Jain, T., **Kumar, S.**, Dutta, P.K. Sulfated chitin nanoparticles for drug delivery: Preparation, characterization & evaluation, 51st Indian Chemical Society Convention, Kurukshetra University, Haryana, December 9-12, 2014.
4. Prakash N, **Kumar S.**, Sharma A K, Effect of Reaction Parameters on Propylene Polymerization with the Me₂Si(2-Me-Ind)₂ZrCl₂ Catalyst: An Artificial Neural Network Approach, Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012), BITS Pilani, March 23-24, 2012.
5. **Kumar S.**, Acharya C, Thakur S, Role of Ionic Liquid in the Extraction of Aromatic Compounds from Aliphatic Compounds, Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012), BITS Pilani, March 23-24, 2012.
6. Datta D, **Kumar S.**, Chellappan S, Ghosh A, Effect of Modifier on Reactive Extraction of Glycolic and Glyoxylic Acids, Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012), BITS Pilani, March 23-24, 2012.
7. Datta D, Chellappan S, **Kumar S.**, Experimental Design and Modeling of Itaconic Acid Reactive Extraction using Response Surface Method, Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012), BITS Pilani, March 23-24, 2012.
8. Rarotra S, Rajput K, **Kumar S.**, Applications of Ionic Liquids in the Extraction of Organic Acids: A Brief Review, Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012), BITS Pilani, March 23-24, 2012.
9. Chomal N, **Kumar S.**, Kumar A. Green Technology for Extraction of Bio-Compounds Using Ionic Liquids, Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012), BITS Pilani, March 23-24, 2012.
10. Dharaskar S.A., Wasewar K.L., Varma M.N., Shende D.Z., **Kumar S.**, New Design Approaches to Ultra-Clean Diesel Fuels by Deep-Desulfurization, Conference on Technological Advancements in Chemical and Environmental Engineering (TACEE-2012), BITS Pilani, March 23-24, 2012.
11. **Kumar, S.**, Babu, B. V. A Brief Review on Propionic Acid: A Renewable Energy Source. Proceedings of National Conference on Environmental Conservation (NCEC-2006), BITS-Pilani, September 1-3, 2006, 459-464.

12. **Kumar, S.,** Wasewer, K. L. Carboxylic Acids: Renewal Energy Sources. Proceedings of National Seminar on Energy Conservation & Environment Management for Sustainable Development of Process Industries, ITGGU, Bilaspur, February 25-26, 2006.
13. **Kumar, S.,** Wasewer, K. L. Starch based Biopolymers with Environmental Aspects: A Brief Review, Proceedings of National Seminar on Energy Conservation & Environment Management for Sustainable Development of Process Industries, ITGGU, Bilaspur, February 25-26, 2006.
14. **Kumar, S.,** Akhtar S., Kumar, V. Processing of Foamed (Microcellular) Polymers: A Brief Study. Proceedings of National Seminar on Polymer Research in India at MNNIT Allahabad, India, September, 2004.
15. **Kumar, S.,** Katiyar, V., Khanna, A. Synthesis of Metallocene Catalysts and Cocatalysts. Proceedings of Indian Chemical Engineering Congress (CHEMCON-2003), RRL, Bhubneshwar India December 19-22, 2003.
16. **Kumar, S.,** Banerjee T., Khanna, A. Thermodynamics of Ionic Liquids: A Brief Review. Proceedings of Indian Chemical Engineering Congress (CHEMCON-2003), RRL, Bhubneshwar India December 19-22, 2003.