Vikky Anand | Publications

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PUBLICATIONS

Papers in peer-reviewed Journals

1. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "Coalescence, partial coalescence, and noncoalescence of an aqueous drop at an oil-water interface under an electric field", ***Langmuir***, 36, 6051-6060, 2020, doi: https://doi.org/10.1021/acs.langmuir.9b03969.
2. **Vikky Anand**, Subhankar Roy, Vijay M. Naik, Vinay A. Juvekar, and Rochish M. Thaokar, "Electrocoalescence of a pair of conducting drops in an insulating oil", ***Journal of Fluid Mechanics***, 859, 839–850, 2019, doi: 10.1017/jfm.2018.849.
3. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "An experimental study on the effect of conductivity, frequency and droplets separation on the coalescence of two aqueous drops under an electric field", ***Chemical Engineering Research and Design***, 152, 216–225, 2019, doi:https://doi.org/10.1016/j.cherd.2019.09.033.
4. **Vikky Anand**, Roshan Patel, Vijay M. Naik, Vinay A. Juvekar, and Rochish M. Thaokar, "Modelling and particle based simulation of electro-coalescence of a water-in-oil emulsion", ***Computers & Chemical Engineering***, 121, 608–617, 2019, doi:https://doi.org/10.1016/j.compchemeng.2018.12.003.
5. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "Modes of coalescence of aqueous anchored drops in insulating oils under an electric field", ***Colloids and Surfaces A: Physicochemical and Engineering Aspects***, 568, 294–300, 2019, doi: https://doi.org/10.1016/j.colsurfa.2019.02.002.
6. Subhankar Roy, **Vikky Anand**, and Rochish M. Thaokar, "Breakup and non-coalescence mechanism of aqueous droplets suspended in castor oil under electric field", ***Journal of Fluid Mechanics***, 878, 820–833, 2019, doi: https://doi.org/10.1017/jfm.2019.665.
7. **Vikky Anand**, Manu Vashishtha, Biswajit Shown, Prafull Patidar, Ankit Malhotra Swapan Ghosh, Shubhangi Jaguste, Vijay M. Naik, Rochish M. Thaokar, and Vinay A. Juvekar, "Interrelationship between electrocoalescence and interfacial tension in a high acidity crude: Effect of pH and nature of alkalinity", ***Colloids and Surfaces A: Physicochemical and Engineering Aspects***, 555, 728–735, 2018, doi:https://doi.org/10.1016/j.colsurfa.2018.07.
8. **Vikky Anand**, and Vimal Chandra Srivastava, "Photocatalytic degradation of nitrobenzene and azo dye using zinc oxide nanoparticles prepared by electrochemical method", ***Journal of Scientific & Industrial Research***, 75, 632–637, 2016, doi: http://nopr.niscair.res.in/handle/123456789/35575.
9. **Vikky Anand**, and Vimal Chandra Srivastava, "Zinc oxide nanoparticles synthesis by electrochemical method: Optimization of parameters for maximization of productivity and characterization", ***Journal of Alloys and Compounds***, 636, 288–292, 2015, doi: doi.org/10.1016/j.jallcom.2015.02.189.
10. **Vikky Anand**, Harshavardhan, and Vimal Chandra Srivastava, "Synthesis and characterization of copper nanoparticles by electrochemical method: effect of pH", ***Journal of Nano Research***, 31, 81–92, 2015, doi: doi.org/10.4028/www.scientific.net/JNanoR.31.81.

Book chapter

1. **Vikky Anand**, and Rochish M. Thaokar, "Stability and destabilization of water-in-crude oil emulsion", ***Springer Nature*** (Accepted).

Conferences and Talks

1. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "Coalescence of aqueous drops at water-oil interface under an electric field", ***CompFlu***, Indian Institute of Science Education and Research Bhopal, Bhopal, India, 5-7 December 2019.
2. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "Electrocoalescence of two aqueous suspended drops in an insulating oil", ***Research Scholars' Symposium***, Dept. of Chemical Engineering, Indian Institute of Technology Bombay, Mumbai, India, 2 March 2019.
3. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "Electrocoalescence of water drop in oil-water interface", 7^{th} ***International and*** 45^{th} ***National Fluid Mechanics and Fluid Power Conference***, Indian Institute of Technology Bombay, Mumbai, India, 10–12 Dec 2018.
4. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "Improvement of the coalescence performance of two aqueous drops in oil under electric field", 12^{th} ***International Conference on Complex Fluids and Soft Matter***, Dept. of Chemical Engineering, Indian Institute of Technology Roorkee, Roorkee, India, 06–09 Dec 2018 **(Awarded as best poster by ACS publication)**.
5. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "Coalescence and non-coalescence of two aqueous drops in insulating oil under an electric field", 71^{st} ***Annual Meeting of the American Physical Society's Division of Fluid Dynamics***, Georgia World Congress Center, Atlanta, USA, 18–20 Nov 2018.
6. **Vikky Anand**, Vinay A. Juvekar and Rochish M. Thaokar, "Coalescence and non-coalescence of water drops under electric field", ***CompFlu***, Dept. of Chemical Engineering, Indian Institute of Technology Madras, Chennai, India, 18–20 Dec 2017.
7. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "Coalescence and non-coalescence of water drops under electric field", ***Fluid Mechanics and Fluid Power (FPFP)***, Dept. of Mechanical Engineering, Amrita Vishwa Vidyapeetham, Amritapuri Campus, Kerala, India, 14–16 Dec 2017.
8. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "A model to predict electrocoalescence: effect of hydrodynamics", ***Research Scholars' Symposium***, Dept. of Chemical Engineering, Indian Institute of Technology Bombay, Mumbai, India, 18 Feb 2017 (**Awarded as best poster presentation**).
9. **Vikky Anand**, Vinay A. Juvekar, and Rochish M. Thaokar, "Inter-relationship between interfacial properties and electrocoalescence in a high acidity crude: effect of pH and nature of alkalinity", ***CompFlu***, Indian Institute of Information Technology, Hyderabad, India, 12–14 Dec 2016.
10. **Vikky Anand** and Vimal Chandra Srivastava, "Synthesis of nanoparticles by electrochemical method", ***Cognizance***, Center of Nanotechnology, Indian Institute of Technology Roorkee, Uttrakhand, India, 27–29 Mar 2015.
11. **Vikky Anand** and Vimal Chandra Srivastava, "Synthesization and characterization of zinc nanoparticles by electrochemical process", ***CHEMCON***, Indian Institute of Chemical Engineers (IIChE), Dr. SSB University Institute of Chemical Engineering & Technology, Panjab University, Chandigarh, India, 27–30 Dec 2014.