

Curriculum Vitae

KASTURI DUTTA, Ph.D.

CONTACT DETAILS

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RESEARCH AND TEACHING INTERESTS

- Biochemical engineering and Bioprocess development
- Biofuel/ Bioenergy
- Enzymology

CAREER HIGHLIGHTS

Assistant Professor, Department of Biotechnology and Medical Engineering, National Institute of Technology Rourkela (July 2015- till date)

Post-doctorate in Institute of Environmental Engineering at National Chiao Tung University, Taiwan (June 2012 to December 2013)

Research Scientist (Manager) at Reliance Industries Ltd. (December 2011 to April 2012)

AWARDS/FELLOWSHIPS RECEIVED/ ACADEMIC ACHIEVEMENTS

- Journal invited **Reviewer** Anaerobe and BioMed Research International.
- Awarded the **best young scientist** oral presentation award in the 6th CESE conference held on 29 Oct.- 2nd Nov, 2013, at Daegu, South Korea.
- Awarded postdoctoral fellowship from National Chiao Tung University (June 2012 to Dec 2013).
- Qualified **GATE** (Graduate Aptitude Test in Engineering) in 2006.

EDUCATION

Degree: Doctor of Philosophy (Ph.D. in Biotechnology)

Institute: Indian Institute of Technology Guwahati (IITG), Guwahati, India

Degree: Bachelor of Technology (B.Tech in Biotechnology)

University : West Bengal University of Technology

Institute : Bengal Institute of Technology

INVITED TALKS/SPECIAL LECTURES DELIVERED

Delivered an invited lecture on “Development of anaerobic fluidized-bed membrane bioreactor for municipal wastewater treatment.” in the Symposium on sustainable wastewater treatment: microbes & environment at Institute of Environmental Engineering, NCTU, Taiwan, 1st June 2012.

Published/Accepted

1. A., Daverey, Y.C., Chen, **K., Dutta**, Y.T., Huang, J.G., Lin. Start-up of simultaneous partial nitrification, anammox and denitrification (SNAD) process in sequencing batch biofilm reactor using novel biomass carriers. *Bioresource Technology* 2015; 190: 480-486 (**Impact Factor: 5.039**).
 2. A., Daverey, P.C., Chei, **K., Dutta**, J. G. Lin. Statistical analysis to evaluate the effects of temperature and pH on anammox activity. *International Biodeterioration and Biodegradation* (In Press) (**Impact Factor: 2.235**).
 3. **K., Dutta**, C-Y Tsai, W. H. Chen, J. G., Lin. Effect of carriers on the performance of anaerobic sequencing batch biofilm reactor treating synthetic municipal wastewater. *International Biodeterioration and Biodegradation* 2014; 95:84-88 (**Impact Factor: 2.235**).
 4. **K., Dutta**, M-Y., Lee, Webber W-P., Lai, A. Y-C., Lin, C-F., Lin, J. G., Lin. Removal of pharmaceuticals and organic matter from municipal wastewater using two-stage anaerobic fluidized membrane bioreactor. *Bioresource Technology* 2014;165:42-49 (**Impact Factor: 5.039, citations: 4**).
 5. **K., Dutta**, A., Daverey, J.G., Lin. Evolution retrospective for alternative fuels: First to fourth generation. *Renewable energy* 2014;69:114-122 (**Impact factor: 3.361**).
 6. **K., Dutta**, H., Krishnamoorthy, V. V., Dasu. Synthesis of methyl esters by transesterification catalyzed by cutinase from *Pseudomonas cepacia* NRRL B 2320 and kinetic analysis. *Current trends in Biotechnology and Pharmacy* 2014;8(1):1-10.
 7. **K., Dutta**, V. V., Dasu, H., Krishnamoorthy. Development of medium and kinetic modeling for enhanced production of cutinase from *Pseudomonas cepacia* NRRL B-2320. *Advances in Microbiology* 2013;3(6):479-489.
 8. **K., Dutta**, H., Krishnamoorthy, V. V., Dasu. Preparation and characterization of cutinase inducible substrate and screening and selection of *Pseudomonas cepacia* NRRL B 2320 for enhanced production of cutinase. *Journal of Pure and Applied Microbiology*, 2013;7(3):2277-2286. (**Impact factor: 0.073**)
 9. **K., Dutta**, V. V., Dasu, H., Krishnamoorthy. Novel cutinase from *Pseudomonas cepacia* NRRL B-2320: Purification, characterization and identification of cutinase encoding genes. *Journal of General and Applied Microbiology* 2013;59:171-184. (**Impact Factor: 0.743, citations: 3**)
 10. A., Daverey, N. T., Hung, **K., Dutta**, J. G., Lin. Ambient temperature SNAD process treating anaerobic digester liquor of swine wastewater. *Bioresource Technology* 2013;141:191-198. (**Impact Factor: 5.039, citations: 8**)
 11. **K., Dutta**, V. V., Dasu, Synthesis of short chain alkyl esters using cutinase from *Burkholderia cepacia* NRRL B 2320. *Journal of molecular catalysis B: Enzymatic* 2011;72:150-156. (**Impact Factor: 2.745, citations: 7**)
 12. S., Sen, V. V., Dasu, **K., Dutta**, B., Mandal. Characterization of a Novel Surfactant and Organic Solvent Stable High-Alkaline Protease from New *Bacillus pseudofirmus* SVB1. *Research journal of microbiology* 2011;6:769-783. (**citations: 8**)
 13. **K., Dutta**, S., Sen, V. V., Dasu. Production, characterization and applications of microbial cutinases. *Process biochemistry* 2009;44:127-134. (**Impact Factor: 2.524, Citation: 38**).
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PAPERS PRESENTED IN NATIONAL AND INTERNATIONAL CONFERENCES

1. **K., Dutta**, M. Y., Lee, C. F., Lin, J. G., Lin (2013). Bioenergy production from simulated municipal wastewater treatment in two-stage anaerobic fluidized membrane bioreactor. 29 Oct. - 2 Nov. 2013, 6TH International Conference on the Challenges in Environmental Science & Engineering (CESE 2013), Daegu, South Korea.
 2. **K., Dutta**, C.Y., Tsai, W. H., Chen, J. G., Lin (2013). Effect of carriers on the performance of anaerobic sequencing batch biofilm reactor treating synthetic municipal wastewater. 29 Oct. - 2 Nov. 2013, 6TH International Conference on the Challenges in Environmental Science & Engineering (CESE 2013), Daegu, South Korea.
 3. **K., Dutta**, M. Y., Lee, C. F., Lin, J. G., Lin (2013). Sewage treatment in anaerobic fluidized bed bioreactor. World biotechnology Congress 2013, 3-6 June, Boston, USA.
 4. **K., Dutta**, A., Daverey, J.G., Lin (2012). Alternative fuel different options: progression from first generation to fourth generation. 9-13 Sept., CESE-2012, Australia.
 5. Y-C., Liang, **K., Dutta**, A., Daverey, J.G., Lin (2012). A pilot study of wastewater treatment by partial nitrification and anammox process. 9-13 Sept., CESE-2012, Australia.
 6. V. V., Dasu, **K., Dutta** (2011) Purification and deactivation study of cutinase from *Pseudomonas cepacia* NRRL B 2320. SIM Annual Meeting and Exhibition 24-28 July, 2011, New Orleans LA.
 7. **K., Dutta**, V. V., Dasu Production of cutinase from *Pseudomonas cepacia* NRRL B2320: Screening of microorganisms and medium optimization. International Conference on Genomic Sciences (ICGS) 2010, 12-14 Nov. 2010, Madurai Kamaraj University, Madurai, Tamil Nadu, India.
 8. **K., Dutta**, V. V., Dasu. Effect of Different Inducers on the Production of Microbial Esterases. 3rd International Congress on Bioprocess in Food Industries & 5th Convention of the Biotech Research Society India 6-8 November 2008, Osmania University, Hyderabad.
 9. **K., Dutta**, V. V., Dasu. Effect of Tween 80 and Olive oil on production of Lipase by *Pseudomonas* species. Chemference 2008, 5-6 July 2008, IIT Kanpur.
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