

SANDEEP MORA
500 10th Street NW, Atlanta, GA 30318
E-mail: sundeepmora@gmail.com
Phone: (337) 397-2078

EDUCATION

- PhD**, Chemical and Biomolecular Engineering, Graduation Expected, May 2013
Georgia Institute of Technology, GA GPA 3.68/4.0
- Masters of Science**, Chemical Engineering, May 2009
University of Louisiana at Lafayette, LA GPA 4.0/4.0
- Bachelor of Technology (B.Tech)**, Chemical Engineering, May 2007
J.N.T.University, Anantapur, India GPA 4.0/4.0

RESEARCH EXPERIENCE

- Research Assistant, Georgia Institute of Technology, August 2009- present
Dissertation Titled: **Production of Biofuels by accelerating Enzymatic Hydrolysis of Cellulose and Cornstarch using Cationic Polymers**
- Enzymatic cellulose and corn starch hydrolysis for production of glucose were performed in batch reactors using polymers
 - Effect of cellulose fiber length during hydrolysis was studied
 - Adsorption and binding of cellulose and starch on enzyme was studied
 - A computer program was written for kinetic equations of hydrolysis of cellulose in series CSTRs
 - Viscosity studies were performed on corn starch hydrolysis
- Research Assistant, University of Louisiana at Lafayette, August 2007- 2009
Dissertation Titled: **A QM (Quantum Mechanical) /MM (Molecular Mechanics) Study of Two Key Enzymes in 1, 3 Propanediol Production from Glycerol**
- Research Assistant, Indian Institute of Chemical Technology, Hyderabad, January-March 2007
Project Titled: **Developing a Mathematical Model for a Self-Mixing Anaerobic Digester**

PUBLICATIONS AND CONFERENCE PRESENTATIONS

- **S. Mora**, J. Lu, S. Baneerje “Mechanism of Rate Enhancement of Wood Fiber Saccharification by Cationic Polyelectrolytes” *Biofuels and Environmental Biotechnology*, Accepted
- J. Lu, S. Rao, T. Le, **S. Mora** and S. Baneerje “Increasing Cake Solids of Cellulosic Sludge Through Enzyme-Assisted Dewatering” *Process Biochemistry*, 2011. 46: p. 353-357
- Reye JT, Lu J, Maxwell K, Mora S, Banerjee S “Enhancement of Cellulase Catalysis of Wood Pulp Fiber by Cationic Polyelectrolytes” submitted to *Biomass and Bioenergy*
- Yuemin Liu, Y.-S. Liu, **S. Mora** and W. Xu, “QM/MM (ONIOM) Study of Glycerol Binding and Hydrogen Abstraction by the Coenzyme B12-Independent Dehydratase” *Journal of Physical Chemistry*, 2010.
- **S. Mora**, Y.-S. Liu, S.R. Saraf, “Recent Advances in Biofuels Production and By-Product Utilization” in 30th Symposium on Biotechnology for Fuels and Chemicals, New Orleans, LA, May 4-7, 2008
- **S. Mora**, J. Sripad, “Eco-friendly Biodegradable Plastics” in “Chemcon-05”, International conference, Mumbai, India, January 2006

SKILLS

- Simulation Packages : PIPE PHASE, SYBYL, Gaussian, HTML, MATLAB, UL Lafayette Corrosion Model, Polymath, Vector NTI, MS Office,
- Languages & Operating Systems: C, VB, .NET, Windows, Linux

ORGANIZATIONS

- Member of the National American Institute of Chemical Engineers (AIChE)
- Member of the National Technical Association of the Pulp and Paper Industry (TAPPI)
- Vice President of Graduate Student TAPPI Organization