

Abolghasem Shahbazi

Bioenvironmental Engineering Program
Department of Natural Resources and Environmental Design
1601 East Market Street
North Carolina A&T State University
Greensboro, NC 27411
Phone: (336) 334-7787; Fax: (336) 334-7270
E-mail: ash@ncat.edu

PROFESSIONAL EXPERIENCE

- Professor and Director, June 2004- Present
Bioenvironmental Engineering Program Department of Natural Resources and Environmental Design, NC A&T State University, Greensboro, NC
- Professor and Graduate Coordinator, June 2001- May, 2004
Department of Natural Resources, Agricultural and Biosystems Engineering, NC A&T State University, Greensboro, NC
- Associate Professor and Graduate Coordinator, October 1990 - May 2001
Department of Natural Resources, Agricultural and Biosystems Engineering, NC A&T State University
- Assistant Professor, 1983 - September 1990,
Department of Natural Resources, North Carolina A&T State University, Greensboro, NC

EDUCATION

PhD in Agricultural Engineering, Penn State University, 1982
MS in Agricultural Engineering, Univ. of CA. at Davis, 1978

PROFESSIONAL AFFILIATIONS

- Member of American Society of Agricultural Engineering (ASAE)
- Member of Center for Energy Research and Technology (CERT), NC A&T SU
- Board Member and Chair, 2001-2002, North Carolina Sustainable Energy Association

CURRENT PROJECTS

- Shahbazi, A., Y. Li . Co-gasification of Coal and Waste Biomass in Batch Processing Downdraft Gasifier and Continuous Fluid Bed Reactor . U.S. *DoE*, \$200,000. 10/1/2005-9/30/2008 (Pending).
- Shahbazi, A. Y. Li . Atmospheric pressure low temperature biomass liquefaction and biorefining model. *DOE for Education Institution*, Joint with the University of Minnesota, Funds to NCAT \$150,000, 06/06-12/07 (Pending)
- Shahbazi, A. K.A. Schimmel, Y. Li. Study of heterogeneous reaction of cellulose for bioenergy production from biomass. *NSF for Research Center*, Joint with University of Florida, Funds to NCAT, \$495, 765, 01/2005-12/2009 (Pending)
- Shahbazi, A., Y. Li. Multidisciplinary, Multi-campus, Internet- based Course Development: Bioprocess Engineering. *USDA CSREES, Capacity Building*, \$299,997. 10/1/2005-9/30/2008.

- Shahbazi, A., Y. Li, S. A. Ibrahim, V. Shirley. Biological Conversion of biomass to fuels and chemicals. *USDA-CSRS- Evans-Allen*, \$602,590. 10/1/2005-9/30/2008.
- Shahbazi, A., Y. Li. Composting of pelletized wood used as bedding material in swine production, *USDA-CSRS- Evans-Allen*, \$20,000. 10/1/2004-9/30/2005
- Shahbazi A. Solar Energy Technology Project (MURA), *US Department of Energy, NREL*, \$141,250, 05/01/04-4/10/07
- Shahbazi A. Lou, J. Ibrahim S. Production and Characterization of Low-Cost Biodegradable Polylactic Acid Using Cheese Whey. *USDA- Capacity Building Grant* \$290,968, 10/04-09/07

PULICATIONS

- Li Y., **Shahbazi A.**, Mims M. R., Kadzere C. T. 2005. Separation of cells and proteins from fermentation broth using ultrafiltration. *Journal of Food Engineering* (In press)).
- **Shahbazi, A.**, Y. Li, and M Mims. 2005. Application of Impregnation and Rapid Steam Treatment to the Fractionation of Softwood. *Applied Biochemistry and Biotechnology*. Vol.121-124:973-988.
- Shahbazi, A. M. Mims, Y. Li, S.A. Ibrahim, S. Vest, and A. Morris. 2005. Performance of immobilized Bifidobacteria in converting lactose to lactic acid. *Applied Biochemistry and Biotechnology*, Vol.121-124:529-540.
- **Shahbazi, A.**, H. Singh, C. Turner, Y. Li, S. Fitzpatrick. 2005. Performance evaluation and economic analysis of a grid connected photovoltaic system in multifamily residential building, *Applied Engineering in Agriculture*. 21(4).
- **Shahbazi, A.**, Ibrahim, S.A., and Shirley, V., Immobilization of *Lactobacillus helveticus* on a Spiral Sheet Bioreactor for the Continuous Production of Lactic Acid". Accepted for publication in *Milchwissenschaft*, Fall 2004.
- **Shahbazi, A.**, & Ibrahim, S.A. (in press). Production of lactic acid by *Lactobacillus helveticus*. *Food Biotechnology*.
- Ibrahim, S. A., Dharmavaram, S. R., Seo, C. W., **Shahbazi, A.**, 2003. Antimicrobial Activity of *Bifidobacterium longum* (NCFB 2259) as Influenced by Spices. *International Journal of Food Safety*, V. 2, 6-8.
- Lou, J., Schimmel, K., **Shahbazi, A.**, Harinath, V., Rutkoski, C., 2003. The Influence of Fillers on the Biodegradation Kinetics of polymers, *ANTEC proceedings*, 2823-2829.
- Lou, J., **Shahbazi A.**, and A., Harinath, 2003. Characterization of polyetherimide and polystyrene in shear flow, *ANTEC proceedings*, 2193-2197.
- Li, Y., **A. Shahbazi**, and S. Coulibaly 2005. Separation of Lactic Acid from Cheese Whey Fermentation Broth using Cross-flow Ultrafiltration and Nanofiltration Membrane System. 2005 *AICHE Annual Meeting*, Cincinnati, OH.
- Li, Y., **A. Shahbazi**, M. Mims and S. Coulibaly 2005. Lactic Acid Recovery from Cheese Whey Fermentation Broth Using Nanofiltration Membranes, *ASAE Paper No. 056044. St. Joseph, Mich.: 2005 ASAE Annual Meeting*, Tampa, Florida, July 18-21, 2005.
- **Shahbazi A.**, Li, Y. 2005. Assessment of Crop Residues for Bioethanol Production in North Carolina, *ASAE Paper No. 056044. St. Joseph, Mich.: 2005 ASAE Annual Meeting*, Tampa, Florida, July 18-21, 2005.

- **Shahbazi A.**, Li, Y., M. Mimis and S. Coulibaly 2005. Lactic Acid Production from Cheese Whey, *1890 Joint Research and Extension Conference*, New Orleans, LO, June 19-22, 2005.
- **Shahbazi A** Y. Li.,2005 Availability of Crop Residues as a Sustainable Feedstock for Bioethanol Production in North Carolina. *The 27th Symposium on Biotechnology for Fuels and Chemicals Denver*, Colorado, May 1-4, 2005.
- Li, Y., **A. Shahbazi**. 2005. Lactic acid separation and purification from cheese whey fermentation broth using membrane system. *The 27th Symposium on Biotechnology for Fuels and Chemicals Denver*, Colorado, May 1-4, 2005.
- Li, Y., **A. Shahbazi**, M. Mims, and C. Kadzere, 2004. Separation of Cells and Proteins from Fermentation Broth Using Ultrafiltration. *ASAE Paper No. 047071. St. Joseph, Mich.: 2004 ASAE Annual Meeting*, Ottawa, Canada, August 1-4, 2004
- Li, Y., **A. Shahbazi**, A. Morris, and M. Mims. 2004. Hydrogen Production from Starch by Mixed Culture of *Clostridium Butyricum* and *Enterobacter Aerogens*. *ASAE Paper No. 047073. St. Joseph, Mich.:2004 ASAE Annual Meeting*, Ottawa, Canada, August 1-4, 2004
- **Shahbazi A.** , Y. Li, V. Shirley, and S. A. Ibrahim. 2004. Lactic Acid Production from Cheese Whey by Immobilized Bifidobacteria. *The 26th Symposium on Biotechnology for Fuels and Chemicals Chattanooga*, Tennessee, May 9-12, 2004.
- **Shahbazi A.**, Y. Li, and E. Chornet. Application of Impregnation and Rapid Steam Treatment to the Fractionation of Softwood. *The 26th Symposium on Biotechnology for Fuels and Chemicals Chattanooga*, Tennessee, May 9-12, 2004.
- Shahbazi, A. M. R. Mims, S. A. Ibrahim, and **Y. Li**, 2003. Performance of Immobilized Bifidobacteria in Converting Lactose to Lactic Acid. *ASAE Paper No. 036225. St. Joseph, Mich.: ASAE. 2003 ASAE Annual Meeting*, Las Vegas, Nevada, 27-30 July 2003.