

Paper Science and Engineering Scholarship Activities 2003

Peer-Reviewed Journal Articles

1. **Almquist, C. B.**, Sahle-Demessie, E., Enriquez, J. , and Biswas, P, "The photocatalytic oxidation of low concentration MTBE on titanium dioxide from ground water in a falling film reactor," Environmental Progress, 22 (1), pp. 14-23, 2003.
2. Graham, J., Bothe **Almquist, C. L.**, Kumar, S., and Sidhu, S., "An investigation of nanostructured vanadia/titania catalysts for the oxidation of monochlorobenzene," Catalysis Today, 88, pp. 73-82, 2003.
3. Jegadeesan, G., Mondal, K., and **Lalvani, S. B.**, "Comparative Study of Selenite Adsorption on Carbon Based Adsorbents and Activated Alumina," Environmental Technology, 24 (8) 1049-1059, 2003.
4. Mondal, K., Sathitsuksanoh, N., Croft, M. and **Lalvani, S. B.**, "Characterization of Electrodeposited Amorphous Cr-P via X-ray Absorption Spectroscopy", J Materials Science Letters, 22 (9), 655-657, 2003.
5. Mondal, K., and **Lalvani, S. B.**, "Mediator-Assisted Electrochemical Hydrogenation of Soybean Oil," Chemical Engineering Science, 58(12), 2643-2656, 2003.
6. Mondal, K., and **Lalvani, S. B.**, "Electrochemical Hydrogenation of Canola Oil using a Hydrogen Transfer Agent," Journal of the American Oil Chemists' Society, 80, 1135-1141, 2003.
7. Mondal, K., Sathitsuksanoh, N., and **Lalvani, S. B.**, "Extended X-ray Absorption Fine Structure Analysis of Fe-P and Ni-P at the Phosphorous K-edge," J. Materials Science Letters, 22 (2), 95-97, 2003.
8. **Waller, M. H.**, "Basis Weight Gauges: What's New?" from ISA Expo 2003 Conference and Exhibition, Paper No. ISA03-P157, ISA Emerging Technologies, (ISBN TP03ISA157), 439, 131-140, 2003.

External Research Grants Awarded

1. **Coffin, D. W. (PI)** and **M.D. Sikora**, "Investigation of Desirable Properties for Ink Jet Printing, December 2003-December 2005, \$82,923. Scitex, Dayton, OH.
2. Lalvani, S. B., "Removal of Selenium from Agricultural Waste Water," Dept of Water, California, \$67,000, 2002-04 (amount transferred to Miami: \$26,825).

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Internal Research Grants Awarded

1. **Coffin, D. W.**, "Creep of Paper," \$3,200 for undergraduate summer research worker, 2003, Dean's office.
2. **Almquist, C., Coffin, D., Lalvani, S. B., Sikora, M.**, "Application of Nanomaterials in Energy and Environment Areas", a research challenge grant, \$50,000 from May, 2004 - August 2005.

Theses completed

1. Kumar, Sachin, "The Use of Nanostructures V2O5/TiO2 Catalysts for the Destruction of Dimethyl Sulfide," advisor **C. B. Almquist**, 2004.
2. Chung, Young Ho, "An Evaluation of Factors Impacting Optimum Repulping and Minimum Chloroform Generation During Sodium Hypochlorite Repulping," advisor, **R.C. Peterson**, 2003.
3. Bhatia, Krishan, "Use of Near Infrared Spectroscopy and Multivariate Calibration in Predicting the Properties of Tissue Paper Made of Recycled Fibers and Virgin Pulp," advisor, **R.C. Peterson**, 2004.

Undergraduate Summer Scholarships

1. Long, Jennifer, "Investigation of a novel corona/ozone reactor for the partial oxidation of methanol", advisor **C. B. Almquist**. Study was conducted in collaboration with and at the US EPA in Cincinnati. US EPA contact/mentor was E. Sahle Demessie.
2. DeSario, Paul "Investigation of effect of particle size of TiO2 on the photoactivity of TiO2 for the photocatalytic oxidation of herbicides, advisor **C. B. Almquist**.

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1. **Coffin, D. W.**, "Creep of Paper," \$3,200 for undergraduate summer research worker, 2003, Dean's office.
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