

SCIENTIFIC PUBLICATIONS & PATENTS

Carlson, Philip J.; Izgorodina, Eketrina; MacFarlane, Douglas; Gordon, Mark S.; “Computational Investigation of Similar ΔpK_a Amine Systems” to be submitted to the *Journal of Physical Chemistry B*

Carlson, Philip J.; Bose, Sayantan; Armstrong, Daniel W.; Hawkins, Tommy; Gordon, Mark S.; Petrich, Jacob W.; “Structure and Dynamics of the 1-Hydroxyethyl-4-amino-1,2,4-triazolium Nitrate (HEATN) High Energy Ionic Liquid System” *Journal of Physical Chemistry B*, 116, 503-512, **2012**

Kee, Tak W.; Adhikary, Ramkrishna; **Carlson, Philip J.;** Mukherjee, Prasun; Petrich, Jacob W.; “Femtosecond Fluorescence Upconversion Investigations of the Excited-State Photophysics of Curcumin” *Australian Journal of Chemistry* 64, 23-30, **2011**

Adhikary, Ramkrishna; **Carlson, Philip J.;** Kee, Tak W.; Petrich, Jacob W.; “Excited-State Intramolecular Hydrogen Atom Transfer of Curcumin in Surfactant Micelles” *Journal of Physical Chemistry B* 114, 2997-3004, **2010**.

Boyd, Joel E.; Pretzer, Lori A.; **Carlson, Philip J.;** Skiles, Stephanie L.; “Metal Oxide Deposition Strategies for Photocatalytic Water Purification.” In *Handbook of Photocatalysts* ed. Castello, Geri K. Hauppauge, NY; Nova Science Publishers, Inc. **2010**. 323-339

Pretzer, Lori A.; **Carlson, Philip J.;** Boyd, Joel E.; “The Effect of Pt Oxidation State and Concentration on the Photocatalytic Removal of Aqueous Ammonia With Pt-modified Titania” *Journal of Photochemistry and Photobiology, A: Chemistry*, 200, 246-253, **2008**.

Carlson, Philip, J.; Pretzer, Lori, A.; Boyd, Joel, E. “Solvent Deposition of Titanium Dioxide on Acrylic for Photocatalytic Application” *Industrial and Engineering Chemistry Research*, 46 (24), 7970 -7976, **2007**.

Boyd, Joel E.; Pretzer, Lori A.; **Carlson, Philip J.;** “Composite Catalytic Material and Process for Manufacture of Such Material.” Dec. 28, **2010**; Patent No. 7,858,552 B2

OTHER PUBLICATIONS

Carlson, Philip J.; “A Mind at Twelve: Edwards, Anti-Intellectualism, and a Challenge to the Christian Mind” *The RealApologetics Theological Journal*, Vol 1. 29-34, **2011**

SCIENTIFIC PRESENTATIONS

Personal:

Carlson, Philip J.; Adhikary, Ramkrishna; Kee, Tak W.; Petrich, Jacob W.; “Excited-State Intramolecular Hydrogen Atom Transfer and Solvation Dynamics of Curcumin in Surfactant Micelles” *239th A.C.S. National Meeting*, San Francisco, CA **2010**.

Carlson, Philip J.; Gordon, Mark S.; “Application of the Fragment Molecular Orbital (FMO) Method to the High Energy 1-Hydroxyethyl-4-amino-1,2,4-triazolium Nitrate (HEATN) Ionic Liquid System” *239th A.C.S. National Meeting*, San Francisco, CA **2010**.

Pretzer, Lori A.; Carlson, **Philip J.**; Boyd, Joel E.; “Photocatalytic degradation of Ammonia Over Platinized TiO₂” *63rd Southwest Regional A.C.S. Meeting*, Lubbock, TX **2007**

Skiles, Stephanie L.; **Carlson, Philip J.**; Boyd, Joel E.; “Pd/TiO₂ Photocatalyst for Nitrate Reaction.” *63rd Southwest Regional A.C.S. Meeting*. Lubbock, TX. **2007**.

Carlson, Philip J.; Pretzer, Lori A.; Boyd, Joel E.; “TiO₂ Deposition on Acrylic Support Material for Photocatalytic Degradation of NO₃⁻ ions.” *110th Texas Academy of Science Meeting*. Waco, TX. **2007**.

Boyd, Joel E.; Pretzer, Lori A.; **Carlson, Philip J.**; “Titania-acrylic Composite Material for Photocatalysis” *62nd Southwest Regional A.C.S. Meeting*, Houston, TX **2006**.

Carlson, Philip J.; Pretzer, Lori A.; Boyd, Joel E.; “Photocatalytic Degradation of Nitrate with Titanium Dioxide” *62nd Southwest Regional A.C.S. Meeting*. Houston, TX **2006**.

Pretzer, Lori A.; **Carlson, Philip J.**; Boyd, Joel E.; “Photocatalytic Degradation of Ammonia over Platinized Titanium (IV) Oxide” *62nd Southwest Regional A.C.S. Meeting*, Houston, TX **2006**.

Advisees:

Muhoza, Sixbert; Mucunguzi, Anselme; **Carlson, Philip J.**; Bishop, Reid.; “Influence of amino acid side-chain mobility, drug binding, and disulfide bonding on the thermal stability of native human serum albumin” *245th A.C.S. National Meeting*, New Orleans, LA **Spring, 2013**.