

Biographical Sketch

Kirk J Ziegler

EDUCATION AND PROFESSIONAL PREPARATION

University of Cincinnati	Chemical Engineering	B.S.	1996
University of Texas at Austin	Chemical Engineering	Ph.D.	2001
University College Cork	Chemistry	Postdoctoral Fellow	2001 – 2003
Rice University	Chemistry	Postdoctoral Fellow	2003 – 2005

APPOINTMENTS

Assistant Professor, Department of Chemical Engineering, University of Florida, 07/2005 – present

MOST RELATED PUBLICATIONS

* indicates a graduate or undergraduate student advised by KJZ

1. R.K. Wang,* W.-C. Chen,* D.K. Campos,* and **K.J. Ziegler**, “Swelling the micelle core surrounding single-walled carbon nanotubes with water-immiscible organic solvents,” *Journal of the American Chemical Society*, in press (2008).
2. R.K. Wang,* H.-O. Park, W.-C. Chen,* C. Silvera-Batista,* R.D. Reeves,* J.E. Butler, and **K.J. Ziegler**, “Improving the effectiveness of interfacial trapping in removing single-walled carbon nanotube bundles,” *Journal of the American Chemical Society*, in press (2008).
3. R.K. Wang,* R.D. Reeves,* and **K.J. Ziegler**, “Interfacial trapping of single-walled carbon nanotube bundles,” *Journal of the American Chemical Society*, 129, 15124 (2007).
4. **K.J. Ziegler**, D.J. Schmidt, U. Rauwald, K.N. Shah, E.L. Flor, R.H. Hauge, and R.E. Smalley, “Length-dependent extraction of single-walled carbon nanotubes,” *Nano Letters*, 5, 2355 (2005).
5. **K.J. Ziegler**, “Developing implantable optical biosensors,” *Trends in Biotechnology*, 23, 440 (2005).

OTHER SIGNIFICANT PUBLICATIONS (Out of a total of 30 journal and 4 conference papers)

1. **K.J. Ziegler**, Z. Gu, H. Peng, E.L. Flor, R.H. Hauge, and R.E. Smalley, “Controlled oxidative cutting of single-walled carbon nanotubes,” *Journal of the American Chemical Society*, 127, 1541 (2005).
2. **K.J. Ziegler**, Z. Gu, J. Shaver, Z. Chen, E.L. Flor, D.J. Schmidt, C. Chan, R.H. Hauge, and R.E. Smalley, “Cutting single-walled carbon nanotubes,” *Nanotechnology*, 16, S539 (2005).
3. **K.J. Ziegler**, U. Rauwald, Z. Gu, F. Liang, W.E. Billups, R.H. Hauge, and R.E. Smalley, “Statistically accurate length measurements of single-walled carbon nanotubes,” *Journal of Nanoscience and Nanotechnology*, 7, 2917 (2007).
4. Z. Chen, **K.J. Ziegler**, J. Shaver, R. H. Hauge, and R. E. Smalley, “Cutting of Single-Walled Carbon Nanotubes by Ozonolysis,” *Journal of Physical Chemistry B*, 110, 11624 (2006).
5. U. Rauwald, J. Shaver, D.A. Klosterman, Z. Chen, C. Silvera-Batista,* H.K. Schmidt, R.H. Hauge, R.E. Smalley, and **K.J. Ziegler**, “Electron-Induced Cutting of Single-Walled Carbon Nanotubes,” *Carbon*, in press (2008).

SYNERGISTIC ACTIVITIES

1. **Executive Board Member** of the American Institute of Chemical Engineering Nanoscale Science and Engineering Forum (NSEF), Communications Director. The Communications Director is responsible for publication of a quarterly newsletter distributed to all NSEF members.

2. **Co-organizer** of “Nanowires” Topical Session and **chair** or **co-chair** of sessions covering applications of Nanowires, Carbon Nanotubes, and Bionanotechnology, *American Institute of Chemical Engineering Annual Meetings* (2006 – 2008).
3. **Mentor** for freshman minority students, *University of Florida Minority Mentoring Program*, Gainesville, Florida (2006 – 2007).
4. **Invited speaker** at the *Carbon Nanotubes: Synthesis, Characterisation and Applications Symposium of the International Conference on Materials for Advanced Technologies (ICMAT 2009)*, Singapore (2009).
5. **Instructor** of a short course on “Nanotechnology” at the Materials Science Department, CINVESTAV Instituto Politecnico Nacional, Queretaro, Mexico (2006).

AWARDS

Air Force Summer Faculty Fellow (2008).

RECENT TEACHING EXPERIENCE

Process Thermodynamics, Phase and Chemical Equilibria, One-dimensional Nanostructures, Materials for Chemical Engineers, Sustainable Nanotechnology I and II

PROFESSIONAL SOCIETY MEMBERSHIPS

The American Institute of Chemical Engineers (AIChE), Materials Research Society (MRS), American Chemical Society (ACS), American Society for Engineering Education (ASEE), Electrochemical Society (ECS), Tau Beta Pi, Omega Chi Epsilon, American Society for Testing of Materials (ASTM) – Nanotechnology Characterization Standards Committee

COLLABORATORS AND OTHER AFFILIATIONS

- Collaborators (past 48 months): A. Astaghiri (U. Florida), W.E. Billups (Rice U.), J. Butler (U. Florida), J.-C. Bonzongo (U. Florida), J. Eastoe (U. Bristol), D. Erts (U. Latvia), J.D. Glennon (U. College Cork), A.E. Graham (U. Wales Swansea), R.H. Hauge (Rice U.), R.K. Heenan (Rutherford Appleton Laboratory), D. Henneke (U. Waterloo), G. Hutchinson (Napier U.), D. Klosterman (U. Dayton R.I.), B. Maruyaman (WPAFB), M.A. Morris (U. College Cork), R. Narayanan (U. Florida), H. Olin (Mid-Sweden U.), E. Olsson (Chalmers U.), J. Patterson (Intel Ireland), S. Sinnott (U. Florida), T.R. Spalding (U. College Cork), D.C. Steytler (U. East Anglia), K. Svensson (Chalmers U.), L.-S. Tan (WPAFB), A. Ural (U. Florida), S. Vasenkov (U. Florida), J. Weaver (U. Florida), H. Weaver (U. Florida), Lisa-McElwee-White (U. Florida), P. Wick (EMPA).
- Postdoctoral advisors: Prof. Justin D. Holmes (University College Cork), Prof. Richard E. Smalley (deceased – Rice University).
- Ph.D. advisors: Profs. Keith P. Johnston and Brian A. Korgel (University of Texas at Austin).
- Doctoral Students: Justin J. Hill (2005 –), Fahd Rajab (2007–), Carlos Silvera-Batista (2006 –), David Lovett (2008 –), Randy K. Wang (2005 –).
- Masters Students: Wei-Chiang Chen (2008), Chien-Fong Lo (2008), Fahd Rajab (2007), Rakesh Mahadevapuram (2007), Kiran Unnikrishnan (2007).
- Undergraduate Students: Daisy Campos (2007 –), John Blazeck (2007 – 2008), Steven Caliarì (2006 – 2008), Sonja Cotton (2006 – 2007), Tim Geary (2007 – 2008), Travis Gibson (2007 – 2008), Kelly Haller (2008 –), Craig Kiely (2008 –), Ryan Reeves (2005 – 2008).
- High School Students: Sonia Joseph (2007).