**Permanent Address:**
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# Gregory P. Moriarty

## Objective

To obtain a position in a research and development setting to help advance polymeric materials/composites in their properties and applications.

## Experience

August 2009 – Present Texas A&M University College Station, TX

**Graduate Research Assistant in the Polymer Nanocomposites Laboratory**

- Advisor: Dr. Jaime C. Grunlan
- Research and improve electrically conductive polymeric nanocomposites
- Write peer reviewed technical papers for publication in scientific journals
- Give presentations on the research at technical conferences
- Provide critical thinking to solve complex problems within the project

June 2007 – May 2009 Ticona Celstran Winona, MN

**Engineering Internship**

- Improvement of manufacturing processes to increase production
- Setting up and running a melt impregnation line
- Selecting and processing of fiber-resin combinations to optimize properties
- Compression molding of tape samples to produce plaques for testing

Spring 2009 Engineering Department Winona, MN

**Teacher's Assistant**

- Tutored students in the use of testing machines: DSC, TGA, TMA, and DMA
- Researched properties of a vinyl ester resin with addition of rubber nano-particles

Summers 2005 – 2007 Branch Manufacturing North Branch, MN

**Press Operator/Assistant**

- Responsible for producing a finished product using a 300 – 600 ton metal stamping press
- Required to produce 100 – 300 units/hour as part of a team of 2 – 3 coworkers
- Responsible for finding new ways to enhance production levels as part of a team

## Education

2005 – 2009 Winona State University Winona, MN

- **Bachelor of Science:** Composite Materials Engineering
- Graduation Date: May 8, 2009
- Cumulative GPA: 3.87 out of 4.00

2009 – Present Texas A&M University College Station, TX

- **Doctor of Philosophy:** Materials Science and Engineering
- Expected Graduation Date: August 10th, 2013
- Cumulative GPA: 3.38 out of 4.00

**Related Skills**

- Experience with many composite testing procedures (Instron, DSC, TMA, DMA, TGA, four-point probe apparatus)
- Knowledge of CAD programs (Solidworks) and other engineering related computer software (Microsoft Office, Mathematica, and MINITAB)
- Experience with most composite manufacturing processes (RTM, Injection Molding, Pultrusion, Filament Winding, Autoclave, and Wet Lay-Up)

**Awards and Honors**

2005 – 2009 Winona State University Winona, MN

- Dean's List 2005 – 2009
- Alpha Lambda Delta Honor Society Membership 2005 – 2009
- Magna Cum Laude

**Publications**

2009 – Present Texas A&M University College Station, TX

- **G. P. Moriarty**, H. Harrity, C. Yu, J. C. Grunlan, "The Promise of fully organic, high performance thermoelectric materials", *Submitted to Advanced Materials.*
- **G. P. Moriarty**, S. De, P. J. King, M. Via, J. A. King, J. N. Coleman, J. C. Grunlan, "Thermoelectric behavior of organic thin film nanocomposites", *Journal of Polymer Science Part B: Polymer Physics* **2012**, in press.
- **G. P. Moriarty**, J. N. Wheeler, C. Yu, J. C. Grunlan, "Increasing the thermoelectric power factor of polymer composites using a semiconducting stabilizer for carbon nanotubes", *Carbon* **2012**, *50*, 885.
- **G. P. Moriarty**, J. H. Whittemore, K. A. Sun, J. W. Rawlins, J. C. Grunlan, "Influence of polymer particle size on the percolation threshold of electrically conductive latex-based composites", *Journal of Polymer Science Part B: Polymer Physics* **2011**, *49*, 1547.
- R. J. Smith, P. J. King, J. C. Grunlan, **G. P. Moriarty**, J. N. Coleman, *et al*, "Largescale exfoliation of inorganic layered compounds in aqueous surfactant solutions", *Advanced Materials* **2011**, *23*, 3944.
- J. N. Coleman, J. C. Grunlan, **G. P. Moriarty**, *et al*, "Two-dimensional nanosheets produced by liquid exfoliation of layered materials", *Science* **2011**, *331*, 568.

**Presentations**

2009 – Present Texas A&M University College Station, TX

- "Enhancing power factor of polymer composites containing porphyrin-stabilized nanotubes," by **G. P. Moriarty** and J. C. Grunlan, presented at the Materials Research Society Fall Meeting 2011 in Boston, MA on November 29, 2011.
- "Segregated-network polymer nanocomposites for thermoelectric energy conversion," **G. P. Moriarty** and J. C. Grunlan, presented at the Materials Research Society Fall Meeting 2010 in Boston, MA on December 2, 2011.

**Activities**

2005 – 2009 Winona State University Winona, MN

- Vice President of Winona State chapter of Alpha Lambda Delta Honor Society (Sept. 2006 – May 2007)
- Treasurer of Winona Sate chapter of SAMPE (Sept. 2007 to May 2008)
- Habitat for Humanity Winona State chapter (March 2005 – May 2009)