

# **Nanocomposite Thin Films for Reduced Flammability Foam and Fabric**

**Jaime C. Grunlan**  
**Assistant Professor**  
**Department of Mechanical Engineering**  
**Department of Chemical Engineering**  
**Materials Science and Engineering Program**  
**Texas A&M University**  
**College Station, TX 77843-3123**  
**(979) 845-3027 office; [jgrunlan@tamu.edu](mailto:jgrunlan@tamu.edu)**

Prof. Jaime Grunlan joined Texas A&M University as an Assistant Professor of Mechanical Engineering in July of 2004, after spending three years at the Avery Research Center in Pasadena, CA as a Research Engineer. He obtained a B.S. in Chemistry, with a Polymers & Coatings emphasis, from North Dakota State University and a Ph.D. from the University of Minnesota in Materials Science and Engineering. While at Avery Dennison, Dr. Grunlan studied a variety of polymeric systems with unique transport, biological, and/or optical behavior. At Minnesota, he studied segregated network composites using polymer emulsions and a variety of conductive nanoparticles. His current research interests lie in both the development of multifunctional thin films ( $< 1 \mu\text{m}$ ) using layer-by-layer assembly and electrically and/or thermally conductive thick film ( $> 10 \mu\text{m}$ ) nanocomposites. He won the NSF CAREER and 3M Untenured Faculty awards in 2007, and the Dow 2009 Young Faculty Award, for his work in these areas. Dr. Grunlan also holds a joint appointment in Chemical Engineering and serves on the Executive Committee for Texas A&M's Materials Science and Engineering Program. Prof. Grunlan's Polymer NanoComposites (PNC) Lab (<http://nanocomposites.tamu.edu>) currently has 9 graduate and more than 9 undergraduate students working on projects sponsored by NIST, NSF, Air Force, Bayer MaterialsScience, Baker Hughes, and others.