Keeping Single-Walled Carbon Nanotubes Single in SWCNT-Copolymer Composite Aerogels – Ginger Ferguson

Abstract: Researchers have been synthesizing CNT aerogels through various methods to create aerogels with new unique properties. We have developed a poly(vinylpyrrolidone-co-allylamine) single-walled carbon nanotube aerogel using a new technique. By using two different polymer swcnt wrapping steps at different times and concentrations we help ensure the SWCNTs stay individualized even into the final stages of aerogel creation. At this time some of the material, processing and property relationships have been evaluated.

Bio: Ginger started her career teaching high school chemistry and other science classes. She was also a college chemistry lab instructor at Boise State University before joining the Material Science and Engineering Department as a graduate student. She taught for 10 years at the high school level and three years at the college level. Prior to that she spent three years in the U.S. Army as a psychological operations specialist. She has earned a B.S. in Biochemistry, M.S. in Educational Administration and Supervision and is currently working toward her PhD in Materials Science and Engineering. Ginger began her program working for Dr. Kevin Ausman on the relationship between polymers and single-walled carbon nanotubes. She is currently working on the synthesis and characterization of a stimuli-responsive polymer under the direction of Dr. Scott Phillips.