Todd Emrick, PhD

Todd Emrick is a Professor of Polymer Science and Engineering at the University of Massachusetts Amherst. He is a synthetic organic/polymer chemist with a Ph.D. in organic chemistry from the University of Chicago (1997) and postdoctoral research experience in polymers at the University of California Berkeley (1998-2000). He is the director of the Materials Research Science and Engineering Center (MRSEC) on Polymers at UMass Amherst, and additionally serves as co-leader of the Non-flammable Polymer Materials research cluster. He has published >220 peer-reviewed manuscripts and is an inventor on 15 issued patents. His recent awards include selection to the National Academy of Inventors (2014) and receipt of the Carl S. Marvel Award for Creative Polymer Chemistry from the American Chemical Society.

Professor Emrick's work at UMass Amherst consists of new approaches to polymer materials synthesis, including functional polymers, aqueous polymer assembly, self-healing materials, electronically active polymers, and polymers with ultra-low flammability. In the polymer flammability area, his work is focused specifically on discovery of new monomers that are integrated easily into commodity polymers, possess no halogen or inorganic component, and impart markedly reduced flammability to the polymer products such that they can be considered for future use in aircraft and other applications.