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Norman J. Wagner



Co-Founder
STF Technologies LLC

NORMAN WAGNER

ACS PROGRAM-IN-A-BOX

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DR. NORMAN J. WAGNER



POSITION: Robert L. Pigford Chaired Professor of Chemical Engineering at the University of Delaware.

RECOGNITION: AAAS Fellow (2015), the Bingham Medal of the Society of Rheology (2014), NNSA Fellow (2014), and the AIChE PTF Thomas Baron Award (2013)

BULLETPROOF: Protective materials with Norman's shear thickening fluids can protect against impact, knives, and even bullets!

TALKIN' CHEMISTRY

WHAT DOES YOUR ADVANCED MATERIALS RESEARCH FOCUS ON?

Engineering technologically useful, high performance materials requires nanoscale and/or molecular control of their underlying microstructure. Our research focuses on developing a fundamental understanding of the molecular and nanoscale structure and dynamics of complex materials, especially during flow and processing, which falls under the broader disciplines of rheology, nonequilibrium thermodynamics, complex fluids and soft matter. Our goals include directing molecular and nanoscale self-assembly as a route to engineering novel materials.

WHO DO YOU COLLABORATE WITH?

We pioneer new experimental methods for probing nanoscale material structure in collaboration with the National Institute of Standards and Technology (NIST) Center for Neutron Research and Institute Laue Langevin, (ILL) France. Our research has broad application, is supported by the NSF, NASA, NIST, and industry, and includes collaborations around the globe. Translation to practice includes product engineering and entrepreneurial activities through STF Technologies LLC.

WHEN NOT WORKING WITH SHEAR THICKENING FLUIDS WHAT ARE YOUR OTHER INTERESTS?

My teaching interests include Design and Product Engineering, Mass and Heat Transport, Thermodynamics, Colloid and Interface Science and Scattering Methods for Characterizing Soft Matter.

WHAT CHEMISTS DO

BY THE AMERICAN CHEMICAL SOCIETY

Discover more careers like Norman's!

The *What Chemists Do* video project profiles the careers of top chemists in a variety of disciplines. Discover your next career path or simply learn what your colleagues are up to across the bench at acs.org/whatchemistsdo.

