

Matt Helgeson Named 2012 Distinguished Young Rheologist

Chemical Engineering professor is the first recipient of the award from TA Instruments

☒ [Matt Helgeson](#), assistant professor of [Chemical Engineering](#) at UC Santa Barbara, has been named a "Distinguished Young Rheologist" by [TA Instruments](#), a leading manufacturer of rheological and thermal analysis instrumentation. The award, currently in its inaugural year, is given to a young investigator chosen by a panel of established and respected scientists in the field of rheology, and consists of an equipment grant in the form of a new rheometer valued at \$50,000.

Rheology is the study of flow and deformation of materials, including polymers, suspensions, emulsions, foams, pastes, and other complex fluids and solids. TA Instruments established the Distinguished Young Rheologist award to recognize product innovation and research into new materials and applications that expand the field of rheology, as well as to help accelerate the research of new academics.

TA Instruments is the leading manufacturer of analytical instruments for thermal analysis, rheology, and microcalorimetry. Terry Kelly, President of TA Instruments commented, "TA recognizes academia as a source of product innovation and research into new materials and applications that continue to grow the rheometer market. The Distinguished Young Rheologist award is our newest program in support of our vision to maintain our leading market position through strong partnerships with the academic community. This program is designed to help accelerate the research of new academics through equipment grants."

Professor Helgeson recently joined UCSB in March 2012. The Helgeson Lab performs both experimental and theoretical research to understand how both nano-scale interactions in these materials and fluidic processing can be used to design materials including particles, gels, and films with controlled microstructure and stability.

Before coming to UCSB, Helgeson worked on a team to develop a device for simultaneous rheological and small angle light scattering measurement on a conventional rheometer, which was later commercialized by TA Instruments. Using these techniques, he and his colleagues performed groundbreaking studies to understand the microstructural origins of shear banding, a flow instability exhibited by many common soft materials, including soaps, shampoos, pastes, gels, and food products.

Professor Helgeson will be attending the TA Instruments Annual User Meeting in New Orleans, where he will give an invited talk entitled "Gelable Gels: Rheology of Soft Nanocomposites from Crosslinkable, Thermoresponsive Emulsions".

Images



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