Frank V. Bright received his B.S. degree from the University of Redlands in 1982 and the Ph.D. degree from Oklahoma State University in 1985. He was a postdoctoral fellow with Professor Gary M. Hieftje at Indiana University and he began his independent career in 1987. Frank currently holds the A. Conger Goodyear Chair and is Henry M. Woodburn Professor of Chemistry SUNY & UB Distinguished Professor in the University at Buffalo, The State University of New York Department of Chemistry. Frank is the author/co-author of more than 275 peer-reviewed publications and 11 issued patents. His research centers on chemical sensors, anti-fouling materials, supercritical fluid science and technology, and chemical instrumentation.

Awards include the following: 3M Non-Tenured Faculty award (1988-'91), Buck-Whitney Medal (1999), SUNY Chancellor’s Award for Excellence in Teaching (2000), Applied Spectroscopy Gold Medal (2003), Akron Award (2003), A.A. Benedetti-Pichler Microchemistry Award (2005), and the Jacob F. Schoellkopf Medal (2007). In 2010 he was named a Society for Applied Spectroscopy Fellow. His laboratories have been home to more than 50 Ph.D. students.

**Xerogel-Nanocrystallite Hybrids for Optical Sensing**

Sol-gel processing is widely used to create low-k materials, thermal insulations, and stationary phases in the separation sciences. Xerogels, porous sol-gel derived materials formed by solvent evaporation at or near ambient conditions, are also attractive platforms for chemical sensor development. Over the past 20 years our research group has devoted significant time and effort to elucidate the chemistry within amorphous silica-based xerogels as a means to intelligently guide the development of useful xerogel-based materials for use in areas ranging from chemical sensors to anti-fouling coatings. More recently we have developed strategies to graft amorphous silica-based xerogels to photoluminescent nanocrystalline materials (e.g., silicon quantum dots and porous silicon) as a way to create analyte-responsive nanoscopic sensors. The speaker will summarize his research group’s trek to develop hybrid silica-silicon nanosensors.