

Barry J. Streusand

Working in a Small Business

Many scientists and engineers will either start or work for a small business at some point in their careers. It is helpful to understand the unique situation that exists whether contemplating owning or working in one.

High Purity Chemicals

The critical manufacturing constraints that exist in the semiconductor and other industries require exceedingly pure chemicals either as reagents or in other product contact situations. The thought process for making, assuring, transporting, and using these chemicals is very different from most chemical handling situations. Many of the chemicals used in critical production scenarios are also highly reactive, highly toxic, or both. These issues will be explored.

Bio:

Barry J. Streusand, Ph.D., ACSF

Dr. Streusand currently serves as a lecturer in the Department of Chemistry and Biochemistry, Texas State University.

Dr. Streusand is the Founder/Owner/President of Applied Analytical, Inc., Round Rock, Texas, a laboratory specializing in unique analytical chemistry including analyzing highly reactive organometallic compounds, gases, vapors, and materials at ultra-trace levels. Prior to this he was one of three founders of Bandgap Technology. While with Bandgap, he was one of the inventors of a process that lowered the cost of ultrapure tungsten hexafluoride to levels practical for semiconductor manufacture. He also invented methods of analysis that assured semiconductor levels of product quality for highly reactive organometallic precursors and dopants, methods that replaced those that involved growing semiconductors and then testing for purity via electrical properties. Recently Dr. Streusand was responsible for assembling and leading a group of 16 professional scientists in teaching thousands of Boy Scouts chemistry merit badge at the 2013 National Jamboree in West Virginia.

Within ACS, Dr. Streusand is Councilor for the Central Texas Local Section and nationally is active on ACS governance committees. He is a presenter in the ACS Career workshop series. Dr. Streusand is honored to be a Fellow of the American Chemical Society.

Education: Texas A&M, B.S. Chemistry; Marquette University, M.S. Inorganic Chemistry; University of South Carolina, Ph.D. Physical Chemistry; University of Delaware, Postdoc, Chemical Engineering.