

George P. Hansen, is the owner of Advanced Material Designs and Reliability, a small company focused on the development of novel products and materials with high reliability. He has a Bachelor of Science in Chemistry from Texas State University and a Ph.D. in Chemical Physics from Rice University. Dr. Hansen has ten years' experience in medical device product development with Johnson & Johnson where he was accountable for the launch of six surgical glove products and four advanced wound care products. Following this, his career included fifteen years' experience in the development of products and materials with improved performance and reliability to enhance warfighter safety for departments of US defense. He is certified in Reliability Engineering from the American Society for Quality. Advanced Material Designs & Reliability offers consulting services in product failure investigation; reliability assessment, analysis and engineering; product and process development; statistical process control; experimental design; accelerated life testing; product life testing; and project management.

In his presentation, "Introduction to Reliability" he will describe the basic concepts of reliability engineering with particular emphasis on the materials aspect of this aspect of products and structures. In addition, he will describe a number of the analytical tools used in reliability engineering to identify how failures occur, how mechanistic processes lead to failure, and what can be done to mitigate or minimize risks due to failures.