

Abstract: **ALLVAR: What I Wish I Knew Before Starting a Materials Company**

The startup world is a difficult place. This is especially true for companies selling materials with new capabilities that change the way engineers design products. Where do you go? Who do you talk to? Is the technology or product actually valuable? Stepping out into the startup world can be intimidating because of these open-ended questions, but venturing out is necessary to transform the scientific novelty of unique materials into good and useful solutions. This presentation will explore the challenges of starting a new business, what is unique about materials companies, why businesses fail, and what theoretical and practical solutions have the best chance of success.

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James A. Monroe is a scientist turned entrepreneur who has worked on commercializing ALLVAR Alloys over the past decade. He received his doctorate in Mechanical Engineering from Texas A&M University and founded ALLVAR after helping discover tailored and negative thermal expansion alloys, the foundation of ALLVAR's technology. As CEO of ALLVAR, Dr. Monroe works on the business, commercial, and technical development of ALLVAR Alloys and has served as the PI of several SBIR grants and contracts from NSF, NASA, Air Force, and Missile Defense Agency.

