Special Chemistry Seminar

Monday, November 20, 2023
11:30 a.m. ~ BRWN 4102

"CHIPS on the Table: A Chemist's Big Bet on a Career in Semiconductors"

Jonathan Prange, Ph.D.
Technical Program Manager at imec

Biosketch:

Jonathan is a Trchnical Program Manager at imec responsible for establishing and operating technology programs in the US that complement the existing portfolio of core R&D programs at the company headquarters in Leuven, Belgium. He is building partnerships with strategic US universities, companies and organizations that will ensure key capabilities and expertise will be leveraged and coordinated efficiently with imec capabilities and resources in order to solve the semiconductor industry's most pressing challenges of the future.

Before joining imec, Jonathan was a Business Strategy Lead at MITRE working on shaping the organizational and operational details of the National Semiconductor Technology Center as part of the US CHIPS Act. Prior to MITRE, Jonathan spent over 10 years at Dow and DuPont Electronic Materials focusing on developing new metallization and dielectric materials for advanced packaging applications. As part of this, he has led global teams of scientists and engineers developing new technologies and commercializing products within the portfolio of a $100 M per year business.

Jonathan holds a B.S. in Chemistry from Purdue University and a Ph.D. in Chemistry from Stanford University.

Abstract:

Managing and navigating a career in chemistry can be filled with unexpected experiences, challenges and opportunities. In this talk, I will present on both my experiences and research activities throughout my career starting as a Purdue undergrad student in chemistry to my current role as a program manager at imec, a semiconductor R&D organization based in Belgium. I will discuss my academic-to-industry transition and highlight some of the technologies and products commercialized for back-end semiconductor processing. I will then introduce imec and focus the discussion on my current role and how there is a once-in-a-generation opportunity created within the semiconductor industry by the passage of the US CHIPS & Science Act. Finally, I will discuss what imec and Purdue are building together through a partnership on cross-cutting R&D activities in semiconductor design, fabrication and packaging, and how those in chemistry can find opportunities to chart a career path of their own in this industry.