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2026 Hoyt C. Hottel Lecture

Building a Sustainable, Circular, and Low-Carbon Chemical Industry



DIONISIOS G. VLACHOS

Unidel Dan Rich Chair in Energy Professor of
Chemical & Biomolecular Engineering
Director, Catalysis Center for Energy Innovation
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Friday, 23 October 2026
3pm, 2:30pm reception
66-110

Dionisios (Dion) G. Vlachos's research spans circular economy and waste valorization, multiscale modeling and simulation, process intensification and electrification, renewable fuels and chemicals, in silico materials prediction, and kinetic modeling. He is widely recognized as a pioneer in multiscale modeling and in foundational research on biomass conversion, plastics recycling, and upcycling.

Vlachos has been recognized with numerous honors, including the Neal R. Amundson Life Achievement Award (ISCRE/NASCRE, 2025), the Borealis Scientific Innovation Award (Linz, Austria, 2024), the EPA Green Chemistry Challenge Award (2024), the ACS CATL Exceptional Achievements in Catalysis Award (2021), the Irving Wender Award for Excellence in Catalysis (2020), the Catalysis Club of Philadelphia Award (2016), and the R. H. Wilhelm Award in Chemical Reaction Engineering from AIChE (2011). He also received an NSF CAREER Award and an Office of Naval Research Young Investigator Award early in his career, served as ExxonMobil Visiting Chair Professor at the National University of Singapore (2018-2021), and has been an AAAS Fellow since 2009.

He is the corresponding author of over 700 refereed publications and has delivered more than 350 plenary, keynote, and invited lectures. Professor Vlachos serves as Editor-in-Chief of Reaction Chemistry & Engineering and has served on the editorial boards of Chemical Engineering Science, ACS Catalysis, Industrial & Engineering Chemistry Research, Applied Catalysis A: General, and others.

