



Texas A&M University Student Branch American Society for Quality

Wednesday, March 2nd, 2022 | 7:30 -8:30 PM CST

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Transforming the Process Industries Through Modular Chemical Process Intensification

Abstract

In December 2016, the Department of Energy announced the establishment of the 10th Manufacturing USA Institute, representing a critical step in the federal government's effort to double U.S. energy productivity by 2030. The Rapid Advancement in Process Intensification Deployment (RAPID) Institute (<https://www.aiche.org/rapid>) is focused on addressing barriers to enable the development of breakthrough technologies to boost energy productivity and energy efficiency through manufacturing processes in industries such as oil and gas, pulp and paper and various domestic chemical manufacturers. RAPID will leverage approaches to modular chemical process intensification (MCPI) — such as combining multiple process steps as mixing, reaction, and separation into single more complex and intensified processes — with the goal of improving productivity and efficiency, cutting operating costs, and reducing waste.

This talk will present the current structure of the RAPID Manufacturing Institute® supporting the developing of MCPI technologies to address the energy use and emissions challenges of the process industries, and the vision for the future of the institute to play a critical role in the decarbonization initiatives of this manufacturing sector.



Dr. Ignasi Palou-Rivera
Executive Director & Chief Technology Officer
RAPID Manufacturing Institute®

Dr. Ignasi Palou-Rivera is the Executive Director and Chief Technology Officer of the RAPID Manufacturing Institute, a public-private partnership between the US Department of Energy Advanced Manufacturing Office and AIChE on Modular Chemical Process Intensification (MCPI). Ignasi joined RAPID in 2017 and has served in different roles within RAPID.

Dr. Ignasi's professional career spans over 20 years in the areas of process development, process modeling and optimization, refinery planning and scheduling, techno-economic, life-cycle, and sustainability analysis, and R&D management for a variety of organizations such as Aspentech, Applied Materials, BP, LanzaTech and Argonne National Laboratory.

Dr. Ignasi is a Senior Member of AIChE and has been heavily involved as a volunteer both in the Computing & Systems Technology Division (CAST) and the Sustainable Engineering Forum (SEF) AIChE Communities, especially in programming functions. Ignasi is a Past Chair of the Sustainable Engineering Forum, part of the Institute for Sustainability (IfS) Board, and a member of the AIChE PAIC Policy Committee.