

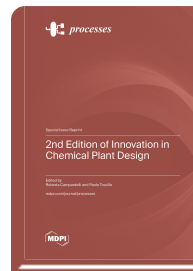
*Special Issue Reprint*

## 2nd Edition of Innovation in Chemical Plant Design

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In an era where chemical engineering systems must meet evolving demands, such as greater sustainability, leaner footprints, and smarter integration, the 2nd Edition of *Innovation in Chemical Plant Design* in *Processes* invited innovative contributions to redefine how we conceive, build, and operate chemical production plants. Building on the success of the first edition, this Special Issue highlighted advances across several synergistic fronts: process intensification and modularization; novel (bio-)based or low-impact energy systems; digitalization, control and automation in plant analytics; advanced materials, nanotechnologies, and smart reactors; and circular-economy strategies applied to chemical-plant design in sectors such as energy, food/agriculture, pharmaceuticals, and construction. Whether presenting conceptual layouts, techno-economic environmental assessments, system simulation, experimental pilot-scale validation, or full-scale case studies, these papers articulated how design choices drive performance, resource efficiency, safety, and sustainability. In this issue, original research articles and review articles clearly address innovation in process design, highlighting trends, challenges, and future directions.

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