Special Issue

Advance in Pharmaceutical Engineering: PAT and Model-Based Approach for QbD and Continuous Processes

Message from the Guest Editors

The pharmaceutical industry is facing an unprecedented challenge in terms of market demand and volatility. This poses the problem of advancing the current system of production with new technologies capable of quaranteeing more flexibility, increased productivity, and operational excellence. The aim of this Special Issue is to collect state-of-the-art knowledge in advanced technologies for pharmaceutical manufacturing. Special focus will be devoted to process analytical technologies (PAT), whose application enables higher yields and cost reduction through better process understanding. Contributions devoted to the development and application of modeling approaches for the design and control of pharmaceutical production, in the framework of the quality by design (QbD) concept, are also welcomed. A key point of the Special Issue is the potential application of PAT and model-based design to the development of continuous production processes, whose implementation would represent an important milestone towards a fully flexible, high-quality, and easily scalable production pipeline.

Guest Editors

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