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Biological Process Modelling, Monitoring and Control in a Rapidly Changing World

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Deadline for manuscript submissions:

closed (20 June 2021)

Message from the Guest Editors

With the closer integration of science and engineering and an emphasis on practical solutions to tackle urgent environmental, energy, and public health challenges across scales, this Special Issue invites contributions that place bioprocess modelling, monitoring and control in the domain of transformative bioengineering. The scope covers biotechnologies, processes or sub-processes and across scales, but must be framed in one or more of the core topic areas (modelling, monitoring and control), and should ideally address current or anticipated societal challenges (e.g., Sustainable Development Goals), future-facing systems (e.g., water resource recovery facilities, fully continuous bio-manufacturing) or a major technical bottleneck related to bioprocessing.

- Biological process modelling
- Biological process control
- Biological process monitoring
- Process optimization
- Advanced process control
- Predictive modelling and control
- Hybrid modelling
- Plant-wide modelling
- Process analytical technology and quality by design
- Water resource recovery processes
- Fermentation processes
- Pharmaceutical bioprocesses
- Metabolic engineering for bioprocesses



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Special Issue



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