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Bioprocess Monitoring, Measurement, and Control by Biosensor-Based Technologies

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Deadline for manuscript submissions:

closed (28 February 2022)

Message from the Guest Editors

Dear Colleagues,

Online analysis of bioprocesses is of increasing interest because it helps to reduce the time delay for offline sample preparation and following analyses via conventional methods. Continuous monitoring of reaction components is a prerequisite for the direct control of biotransformations. This Special Issue encompasses a broad range of optical spectral sensors including UV/NIR/MIR spectroscopy, Raman spectroscopy, fluorescence spectroscopy, optical waveguide sensing and surface plasmon resonance, and their at-line and online applications. Novel optics or fiber/waveguide probes with improved collection efficiency are welcome. The application scenarios include but are not limited to the production of pharmaceuticals, chemicals, fuels, and food. The main topic is related but not limited to:

- online monitoring
- bioprocessing
- ultraviolet spectroscopy
- near-infrared spectroscopy
- Mid-IR infrared spectroscopy
- raman spectroscopy
- surface plasmon resonance
- optical waveguide resonances
- data analysis
- chemometrics
- machine learning



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Special Issue



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Message from the Editor-in-Chief

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