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Breakthroughs in Real-Time Bioprocess Monitoring

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Message from the Guest Editors

Real-time bioprocess monitoring is essential for efficient bioprocess operation and effective bioprocess control. In contrast with offline, retrospective, and time-consuming reference analytical methods, which do not provide a real-time knowledge of process performance, the use of fast, non-destructive, robust, and sensitive online sensors have great potential for real-time monitoring of key bioprocess parameters, significantly reducing the time required for bioprocess control and optimization.

The Special Issue “Breakthroughs in Real-Time Bioprocess Monitoring” aims to highlight novel strategies to monitor bioprocesses using real-time sensors. Potential topics of this Special Issue include, but are not limited to:

- Wastewater treatment;
- Waste valorization;
- Pharmaceutical bioprocesses;
- Stem cell bioprocesses;
- UV-Vis spectroscopy;
- NIR spectroscopy;
- Raman spectroscopy;
- NMR spectroscopy;
- Fluorescence spectroscopy;
- Flow cytometry;
- Biosensors;
- Microfluidics and microanalysis;
- Optical sensors;
- Bioprocesses.



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Special Issue



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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