



Hyperspectral Technology for Precision Plant and Food Analysis: Unveiling Chemical Composition and Quality Parameters

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Message from the Guest Editor

Over the past decade, hyperspectral imaging (HSI) has rapidly evolved into a widely adopted analytical technique across the food and agricultural sectors. Recent instrumentation advances have enabled the high-throughput collection of rich spectral data to be unparalleled by any other optical sensing method. The integration of hyper/multispectral imaging into moving platforms and production lines now permits the real-time, non-invasive evaluation of multiple quality parameters. This Special Issue spotlights the most innovative advancements in HSI technology and reveals its immense application potential for enhanced precision in plant and food systems.

Some of the topics considered in this Special Issue are listed below:

1. Advances in hyperspectral sensors for field and postharvest applications;
2. Novel hyperspectral image acquisition and correction techniques;
3. The development of robust spectroscopic calibration models;
4. Chemometrics for hyperspectral big data analytics;
5. The development of HSI-based precision agriculture practices for optimizing crop yield and quality;
6. Real-time monitoring systems for postharvest quality assurance;





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Message from the Editor-in-Chief

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