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Title:Terahertz time domain spectroscopy and imaging: Emerging techniques for food process monitoring and quality control
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Abstract:The Terahertz (THz) region of the electromagnetic spectrum, spanning the range between 100 GHz and 30 THz, has recently enjoyed a renaissance due to technological developments in source and detector components. With the development of THz instrumentation, applications of THz spectroscopy and imaging for quality control of food products have expanded in scope and improved in performance. This article gives an overview of the fundamentals of THz technology and a comprehensive review of applications of THz time domain spectroscopy and imaging for food quality and control. Technical challenges and future outlook for these emerging techniques are also discussed. © 2012 Elsevier Ltd.
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