

ERL 研究会「コンパクト ERL が拓く世界」

テラヘルツ時間領域分光法と基礎科学への応用

京都大学大学院理学研究科

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**Terahertz Time-Domain Spectroscopy and  
its Application to Fundamental Sciences**

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<Synopsis>

State of the art of the terahertz time-domain spectroscopy is reviewed. After a brief summary of the basic concept of the spectroscopy, several examples of measurements on dielectric constants are presented with references. Special attention is paid for the terahertz attenuated total reflection spectroscopy that serves a powerful characterization method for powder samples, polar liquids, and surface excitations. Finally, future prospects for non-linear THz spectroscopy will be discussed with a special attention to recent development of high power THz sources.