

Preface

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Published online: 6 May 2011
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The theme of this special issue is “Terahertz Technology” in which all the articles were carefully selected from “2nd International Workshop on Terahertz Technology” held in Osaka, Japan during November 30–December 3 in 2009. Terahertz region has been called as “THz gap” or “final frontier” of the electromagnetic waves. The transparency to many soft materials has been applied to various sensing or imaging applications by visualizing the inside of opaque materials with practical spatial resolution. In spectroscopy, the absorption features of crystalline materials have given information that reflects important physical and chemical interactions, extending its applications to biological and medical fields. Now THz technology starts opening the other horizon in its active use. The strong electrical field can heavily vibrate the molecules or temporarily modify the molecular energy potential, resulting to the possibility of the production of novel materials.

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Thus, THz technology has provided the unprecedented methodology, and the extensive research and application fields are energetically being developed. This special issue picks up the very selected works among its immense possibilities. The issue consists of three parts: THz photonics, THz electronics and devices, and THz applications. The editors are happy if the readers feel the recent remarkable developments and the various aspects of THz technology from these articles.

Finally, the editors would like to thank all of the authors of the invited papers. They would also like to thank the reviewers for their hard work. They also appreciate the great efforts of the Editor-in-Chief and the staffs at Springer for their support with great patience.