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Accession number:20113114195395 Title:Terahertz technologies: Present and future Authors:Nagatsuma, Tadao (1) Author affiliation:(1) Graduate School of Engineering Science, Osaka University, 1-3 Machikaneyama, Toyonaka, Osaka 560-0853, Japan Corresponding author:Nagatsuma, T.(nagatuma@ee.es.osaka-u.ac.jp) Source title:IEICE Electronics Express Abbreviated source title:IEICE Electron. Express Volume:8 Issue:14 Issue date:2011 Publication year:2011 Pages:1127-1142 Language:English E-ISSN:13492543 Document type: Journal article (JA) Publisher:Institute of Electronics Information and Communication Eng., Annex 3F, 5-22, Shibakoen 3 chome, Minato-ku, Tokyo, 105-0011, Japan Abstract: A number of technical breakthroughs in electronics and photonics made since the early 1990s have started to bring terahertz (THz)-wave technologies from laboratory demonstrators to industrial applications such as non-destructive testing, security, medicine, communications, etc. This paper overviews the latest progress in THz-wave technologies in terms of components such as sources and detectors, and system applications, and discusses future challenges towards market developments.

Number of references:53