21. Title: Intense coherent terahertz generation from accelerator-based sources

Author: Hama, H; Yasuda, M; Kawai, M; Hinode, F Nanbu, K; Miyahara, F

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Abstract: The development of terahertz (THz) technology and science relevant to accelerator-based sources has been rapid, based on laser and semiconductor physics. To assure further progress of this scientific field, extremely intense radiation, involving gigawatt-class peak power, is needed. In addition to discussing the prospects for typical accelerator-based THz sources, such as coherent synchrotron radiation (CSR) and free electron lasers (FELs), novel, advanced THz sources employing isochronous-ring and bunched-FEL approaches are proposed.