Abstract Submitted
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A terahertz imaging system using high T_c superconducting oscillators fabricated from the Bi2212 single crystals[1] T. KASHIWAGI, K. NAKADE, Y. SAIWAI, H. MINAMI, T. KITAMURA, C. WATANABE, K. ISHIDA, S. SEKIMOTO, K. ASANUMA, T. YASUI, Y. SHIBANO, K. KADOWAKI, University of Tsukuba, M. TSUJIMOTO, Kyoto University, T. YAMAMOTO, NIMS, B. MARKOVIC, J. MIRKOVIC, University of Montenegro — We have developed a terahertz (THz) oscillator based on high T_c superconductor of $Bi_2Sr_2CaCu_2O_{8+\delta}$(Bi2212) single crystals[2] and have succeeded in developing 30μW level of output power,[3] which is continuous, monochromatic as well as stable at frequencies between 0.3 $\sim$ 1.0 THz.[4] Recently, for the purpose of application use of our THz oscillator, we have developed the reflection type of the imaging system in addition to the transmission imaging system reported previously.[5] We will show the details of the system and the images obtained here as practical example and compared those with previous results.

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[4]T. Kashiwagi *et al.*, Jpn. J. Appl. Phys. **51** (2012) 010113.
[5]M. Tsujimoto *et al.*, J. Appl. Phys. **111** (2012) 123111.

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