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Accession number:20113714319016 Title:Recent progresses in terahertz wave air photonics Authors: Dai, Jianming (1); Clough, Benjamin (1); Ho, I-Chen (1); Lu, Xiaofei (1); Liu, Jingle (2); Zhang, Xi-Cheng (1) Author affiliation:(1) Center for Terahertz Research, Rensselaer Polytechnic Institute, Troy, NY 12180, United States; (2) Bloomberg, New York, NY 10022, United States Corresponding author: Dai, J. Source title: IEEE Transactions on Terahertz Science and Technology Abbreviated source title: IEEE Trans. Terahertz Sci. Technolog. Volume:1 Issue:1 Issue date:September 2011 Publication year:2011 Pages:274-281 Article number:6005350 Language:English ISSN:2156342X Document type: Journal article (JA) Publisher:IEEE Microwave Theory and Techniques Society, 2458 East Kael Circle, Mesa, AZ 85213, United States Abstract:Terahertz (THz) wave generation and detection using gaseous medium as both the THz wave emitter and sensor, also termed THz wave air photonics, has attracted much scientific

attention. We report the most recent progresses in THz generation and detection in laser-induced gas plasma. The overall emphasis of this paper is on THz wave detection with gaseous medium, while in the generation part, emphasis will be on the case with two-color laser excitation. Number of references:41