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标题: Efficient Terahertz-Wave Generation Using a 4-Dimethylamino-N-methyl-4-stilbazolium Tosylate Pumped by a Dual-Wavelength Neodymium-Doped Yttrium Aluminum Garnet Laser
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摘要: We have demonstrated highly efficient terahertz (THz)-wave generation based on 4-dimethylamino-N-methyl-4-stilbazolium tosylate (DAST) difference frequency generation (DFG), directly pumped by a dual-wavelength neodymium-doped yttrium aluminum garnet (Nd:YAG) laser. The Q-switched Nd:YAG laser simultaneously generated two wavelengths (1.319 and 1.338 mu m), corresponding to a frequency difference of 3.2 THz. A 7.8mJ pulsed Nd:YAG energy output was achieved, with a pulse duration of 90 ns, resulting in a THz-wave energy of 1.2 nJ. (C) 2012 The Japan Society of Applied Physics
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