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标题: Laser driven generation of intense single-cycle THz field
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摘要: We report on laser-based, high power single-cycle THz source. The THz radiation is generated by four-wave mixing in plasma and by optical rectification in organic salt crystal pumped by powerful optical parametric amplifier. The first approach permits the generation of electric field of hundreds of kV/cm at central frequency of 0.7 THz. The second technique allows the synthesis of an electric field exceeding 1 MV/cm paired with an unprecedented conversion efficiency of more than 2%, at frequency of 2 THz. The presented sources can be focused to a diffraction-limited spot and are suitable-versatile tool for time resolved THz experiment.
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