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Title:Strong-field single-cycle THz pulses generated in an organic crystal

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Abstract:We present high-power single-cycle carrier-envelope phase locked THz pulses at a central frequency of 2.1 THz with MV/cm electric field strengths and magnetic field strengths beyond 0.3 T. The THz radiation is generated by optical rectification in an organic salt crystal 4-N,N-dimethylamino-4'-N'-methyl stilbazolium tosylate called DAST pumped with the signal wavelength of a powerful optical parametric amplifier. Conversion efficiencies of more than 2 are reported.

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