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Broadband Intense THz Fields from Mid-IR Laser-Driven Plasma

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We report on intense THz generation in two-color laser filaments driven by $3.9\ \mu\text{m}$ pulses. The resulting extraordinary conversion efficiency of 2.34% is more than one order of magnitude higher as compared to conventional NIR drivers. The generated THz pulse energy of 0.185-mJ is sufficient for nonlinear perturbation of electro-optical crystals.

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