

Abstract Submitted
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Broadband coherent light generation in a Raman-active crystal driven by two-color femtosecond laser pulses¹ MIAOCHAN ZHI, ALEXEI SOKOLOV, Dept. of Physics, Texas A&M University — We demonstrate broadband light generation by focusing two-color ultrashort laser pulses into a Raman-active crystal, lead tungstate (PbWO_4). As many as 20 Anti-Stokes and 2 Stokes fields are generated due to strong near-resonant excitation of a Raman transition. The generated spectrum extends from infrared, through the visible region, to ultraviolet, and consists of discrete spatially-separated sidebands. Our measurements confirm good mutual spatial and temporal coherence among the generated fields, and open possibilities for synthesis of subfemtosecond light waveforms.

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