

Abstract Submitted  
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**Scaling solid density high-harmonic generation into the mid-infrared range** TAM NGUYEN, FRANKLIN DOLLAR, Univ of California - Irvine  
— High-order harmonic generation (HOHG) has been observed to be a bright source of coherent x-rays in laser-solid interactions using high intensity, femtosecond laser pulses. The majority of high-intensity experiments investigating HOHG have been with the use of 800 nm wavelength lasers. It is known that the density profile of the solid affects absorption of the initial pulse and the intensity of the re-radiated harmonics. We investigate how conversion efficiency and maximum harmonic order scale into the mid-infrared range. Results and particle-in-cell simulations over the pre-plasma scale length will be shown.

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