

Abstract Submitted
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Ellipticity dependence of high harmonics generated using 400 nm driving lasers¹ YAN CHENG, SABIH KHAN, KUN ZHAO, BAOZHEN ZHAO, Kansas State University, MICHAEL CHINI, University of Central Florida, ZENGHU CHANG, University of Central Florida & Kansas State University — High order harmonics generated from 400 nm driving pulses hold promise of scaling photon flux of single attosecond pulses by one to two orders of magnitude. We report ellipticity dependence and phase matching of high order harmonics generated from such pulses in Neon gas target and compared them with similar measurements using 800 nm driving pulses. Based on measured ellipticity dependence, we predict that double optical gating (DOG) and generalized double optical gating (GDOG) can be employed to extract intense single attosecond pulses from pulse train, while polarization gating (PG) may not work for this purpose.

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