

Abstract Submitted  
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**Three-active-electron mechanism of intense-field multiple ionization: recollisions, Coulomb focusing and excitation**<sup>1</sup> PHAY HO, JOSEPH EBERLY, Department of Physics and Astronomy, University of Rochester — We present the mechanism of intense-field multiple ionization obtained from 2-D classical three-electron ensemble calculations. The three electrons are dynamically active and are subjected to the nuclear attraction, e-e repulsion and laser interaction simultaneously throughout the whole duration of the laser pulse. The calculations are done at different laser intensities in the range of  $10^{14}$  W/cm<sup>2</sup> to  $10^{16}$  W/cm<sup>2</sup>, but using the same laser wavelength of 780 nm. We found that the paths to multiple ionization require the combination of one or more recollisions, excitation and Coulomb focusing. These processes are dynamically intertwined to promote the removal of multiple electrons.

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