

Abstract Submitted
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Probing Ultrafast Dynamics in Small Molecules Using Vacuum Ultraviolet Pulses¹ TRAVIS WRIGHT, ELIO CHAMPENOIS, JAMES CRYAN, DIPANWITA RAY, NIRANJAN SHIVARAM, DAN SLAUGHTER, FELIX STURM, Lawrence Berkeley National Lab, CHAN YANG, Department of Physics, National Tsing Hua University, ALI BELKACEM, Lawrence Berkeley National Lab — A time-resolved study of ultrafast energy conversion in molecular systems is presented. The mechanisms underlying these ultrafast conversions of energy are studied with a novel VUV pump XUV probe spectroscopy. Velocity map imaging and time of flight techniques are used to time resolve the kinetic energy release, total ion yield, and angular distributions of both photoions and photoelectrons. This technique allows us to observe state specific dynamics near conical intersections in ethylene and carbon dioxide.

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