

Abstract Submitted
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Time-Resolved Photoion Spectroscopy of a UV-Induced Ring-Opening and Dissociation Reaction¹ SHASHANK PATHAK, JAN TROSS, DANIEL ROLLES, J.R. Macdonald Laboratory, Kansas State University, USA, MIKE ASHFOLD, CHRISTOPHER HANSEN, REBECCA INGLE, University of Bristol, UK, REBECCA BOLL, European XFEL, Schenefeld, CARLO CALLEGARI, MICHELE DI FRAIA, OKSANA PLEKAN, KEVIN PRINCE, FERMI, Italy, BENJAMIN ERK, Deutsches Elektronen-Synchrotron, Hamburg, RAIMUND FEIFEL, RICHARD SQUIBB, Gothenburg University, Sweden, RUARIDH FORBES, University of Ottawa, Canada, DAVID HOLLAND, Daresbury Laboratory, UK, ROBERT MASON, University of Oxford, UK, ARNAUD ROUZEE, Max-Born-Institut, Berlin, Germany — We report the results of an experiment studying the UV-induced ring-opening and subsequent unimolecular dissociation of a heterocyclic ring molecule using time-resolved photoion and photoelectron spectroscopy at a seeded free-electron laser. Photoions and photoelectrons were recorded simultaneously using a covariance magnetic bottle spectrometer. The photoelectrons primarily monitor the ultrafast electronic excitation and de-excitation pathways, while the time-resolved fragment ion yields trace subsequent dissociation dynamics of the excited reaction products.

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Shashank Pathak
J.R. Macdonald Laboratory, Kansas State University, USA

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