

Abstract Submitted  
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**Momentum Imaging of the Dynamics of Dissociative Electron Attachment to Uracil**<sup>1</sup> DAN SLAUGHTER, Lawrence Berkeley National Laboratory, YU KAWARAI, Sophia University, THORSTEN WEBER, Lawrence Berkeley National Laboratory, YOSHIRO AZUMA, Sophia University, CARL WINSTEAD, VINCE MCKOY, California Institute of Technology, ALI BELKACEM, Lawrence Berkeley National Laboratory — Observation of the dynamics of dissociative electron attachment (DEA) in biomolecules has recently become possible by momentum imaging of the fragments resulting from the dissociating transient anion resonance. A momentum spectrometer featuring a  $4\pi$  solid angle of detection is combined with a pulsed electron beam and effusive molecular beam in a crossed geometry to measure the full 3D momentum distribution of dissociating negative ions. Guided by electronic structure calculations that indicate the most likely orientation of the molecule at the time of attachment, we present key aspects of the dynamics of ring-breaking dissociation of the transient anion formed upon DEA to the nucleobase uracil.

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