

Abstract Submitted
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Investigating roaming pathways in photoinduced NO abstraction from nitrobenzene via electron diffraction¹ KAREEM HEGAZY, Stanford PULSE Institute, SLAC National Accelerator Laboratory, Menlo Park California, THOMAS WOLF, Stanford Pulse Institute, SLAC National Accelerator Laboratory, UED GAS PHASE COLLABORATION — Roaming mechanisms are thought to be an important unimolecular reaction where molecular fragments roam and react or reorganize with the remainder. Roaming has not been directly observed with sufficient time resolution and is considered a possible mechanism for the photoinduced NO dissociation of nitrobenzene. We directly observe the time dependent structural evolution of gas phase nitrobenzene pumped with 266 nm light at the SLAC Ultrafast Electron Diffraction with 0.5 Å and 150 fs spatial and temporal resolution.

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