Abstract Submitted
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Photoionization of Nitromethane at 355nm and 266nm[1] DENHI MARTÍNEZ, Instituto de Ciencias Físicas, Universidad Nacional Autónoma de México, FRANCISCO BETANCOURT, JUAN CARLOS POVEDA, Universidad Nacional Autónoma de México, ALFONSO GUERRERO, CARMEN CISNEROS, IGNACIO ÁLVAREZ, Instituto de Ciencias Físicas, Universidad Nacional Autónoma de México — Nitromethane is one of the high-yield clean liquid fuels, i.e. , thanks to the oxygen contained in nitromethane, much less atmospheric oxygen is burned compared to hydrocarbons such as gasoline, making the nitromethane an important prototypical energetic material, the understanding of its chemistry is relevant in other fields such as atmospheric chemistry or biochemistry. In this work we present the study of photoionization dynamics by multiphoton absorption with 355nm and 266 nm wavelength photons, using time of flight spectrometry in reflectron mode (R-TOF). Some of the observed ion products appear for both wavelength and other only in one of them; both results were compared with preview observations and new ions were detected.

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