PHOTODISSOCIATION OF METHYL ISOTHIOCYANATE STUDIED USING CHIRPED PULSE UNIFORM FLOW SPECTROSCOPY

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Chirped-Pulse Fourier-transform microwave spectroscopy has been applied in a uniform supersonic flow (Chirped-pulse/Uniform flow, CPUF) to study the 193 nm photodissociation of methyl isothiocyanate (MITC). Several products (CH$_3$NC, NCS, H$_2$CS, HCN and HNC) were identified via their pure rotational spectra. Observation of CH$_3$NC and NCS are consistent with previous studies of this system, however it is the first detection of H$_2$CS and HCN/HNC. Branching ratios were obtained from these data and will be discussed.