PHOTODISSOCIATION OF ISOXAZOLE AND PYRIDINE STUDIED USING CHIRPED PULSE MICROWAVE SPECTROSCOPY IN PULSED UNIFORM SUPERSONIC FLOWS

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Chirped - Pulse Fourier-transform microwave spectroscopy in uniform supersonic flows (Chirped- Pulse/Uniform Flow: CPUF) has been applied to study the photodissociation of two atmospherically relevant N containing heterocyclic compounds; pyridine and isoxazole. Products were detected using rotational spectroscopy. HC3N, HCN were observed for pyridine and CH3CN, HCO and HCN were observed for isoxazole and we report the first detection of HNC for both of the systems. Key points in potential energy surface were explored and compared with the experimental observations. Branching ratios were calculated for all the possible channels and will be presented.