

CAVITY RING DOWN SPECTROSCOPY OF CARBON CHAIN RADICALS

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Cavity ring down spectroscopy through a supersonic planar plasma is used to study the electronic transitions of a series of carbon chain radicals in direct absorption.^a The gas phase spectra of species of the form $C_{2n}H$, $HC_{2n}H^+$, $HC_{2n+1}N^+$, $NC_{2n-2}N^+$,^b and C_n are compared to the hitherto reported diffuse interstellar band positions.

^aT. Motylewski and H. Linnartz, *Rev. Sci. Instrum.* **70**, 1305 (1999).

^bT. Motylewski, H. Linnartz, O. Vaizert, J.P. Maier, G.A. Galazutdinov, F.A. Musaev, J. Krelowski, G.A.H. Walker, and D.A. Bohlender, *Astrophys. J.* **531**, xxxx (2000)