CCH AND HNC IN PLANETARY NEBULAE

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A survey of CCH and HNC has been conducted towards a sample of ten planetary nebulae of varying ages using the Submillimeter Telescope (SMT) of the Arizona Radio Observatory (ARO) at 1 mm. The N = 3 $\rightarrow$ 2 transition of CCH at 262 GHz and the J = 3 $\rightarrow$ 2 line of HNC at 272 GHz were observed using the ALMA Band 6 receiver at the SMT. The molecules were detected in most of the sources where HCN and HCO^+ had been identified in a previous survey. Molecular abundances for CCH and HNC have been determined in these nebulae, as well as [HCN]/[HNC] ratios. These observations further support the notion that the chemistry in planetary nebulae remains active despite the ultraviolet radiation field from the central white dwarf star.