BIMA ARRAY MOLECULAR SEARCHES IN COMET HALE-BOPP(C/1995 O1)

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Cometary molecules specifically targeted for observation with the BIMA Array during the 1997 apparition of comet Hale-Bopp included HCN, HCO^+, and CS, but because the BIMA Array has a very flexible, wideband spectrometer[a], many other species had transitions in the bandpass which could be observed simultaneously with the target molecules. We discuss the results of these "search" observations which included transitions of AlCl, CO, ^{13}CS, ^{34}SO, SiO, ^{29}SiS, C_2H, C_2S, HCS^+, $H^{15}NC$, MgNC, OCS, SO_2, $^{33}SO_2$, $^{34}SO_2$, $Si^{13}CC$; C_3H, C_3S, $HOCO^+$, C_3H_2, C_4H, HC_3N, C_5H, CH_3CN, $CH_3^{13}CN$, CH_3OH, NH_2CHO, C_6H, CH_2CHCN, $HCOCH_3$, $HCOOCH_3$, $(CH_3)_2O$, CH_3CH_2OH, and HC_7N (here, a molecular formula with no mass number denotes the main isotopomer).

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[a] W. J. Welch et. al., PASP, 108, 93 (1996)