THE KINEMATICS OF THE ORION-KL REGION FROM HIGH RESOLUTION CARMA OBSERVATIONS

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Orion-KL is a well studied region of rich, but poorly understood chemical diversity. Complex nitrogen bearing molecules are primarily detected toward the hot core, while complex oxygen bearing molecules are detected toward the compact ridge. This chemical differentiation is thought to arise in part from the differing kinematics of the hot core and compact ridge. In order to better understand this region, we conducted a high spatial ($\sim 3'' \times 2.5''$) and spectral ($\sim$0.4 km s^{-1}) resolution study of the Orion-KL region with the CARMA interferometer. The observations are of low energy HNC, HC_3N, HCO^+, C_2H, and CH_3CCH rotational transitions between 85 and 90 GHz. These transitions show a vast array of different velocity profiles throughout the region. The results of this study will be presented.
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