

P132c **Star Formation Rates of Massive Molecular Clouds in the Central Molecular Zone**

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The measured star formation rates (SFRs) of massive molecular clouds in the Central Molecular Zone (CMZ) of the Galaxy are an order of magnitude lower than expected from the dense gas star formation law, where the dense gas is of densities $\gtrsim 10^4 \text{ cm}^{-3}$. Here we report new interferometer observations of five massive clouds in the CMZ and one cloud likely outside of the CMZ. Using H_2O masers and ultra-compact H II regions, we find evidence of ongoing star formation in early evolutionary phases, and estimate the SFRs of these clouds. The resulting SFRs are consistent with previous works, reinforcing the conclusion that star formation in these clouds is inactive with respect to the dense gas star formation law. The observations, however, can be reconciled with the dense gas star formation law, if we assume a $\sim 10\%$ dense gas fraction for these clouds, where the dense gas refers to gas of densities $\gtrsim 10^6 \text{ cm}^{-3}$ and being gravitationally bound. This suggests a higher density threshold for star formation to take place in the CMZ, which may be related to the strong turbulence in this region.