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Question: Other

The Little Galaxy That Could

Henize 2-10 (He 2-10) is a remarkable blue compact dwarf galaxy that has attracted astronomers for decades, largely due to its high star formation rate $\sim 0.7 M_{\odot} \text{ yr}^{-1}$, and powerful outflows, prolific super star cluster production, and low-luminosity AGN. At a distance of only ~ 10 Mpc, He 2-10 is excellent nearby laboratory to study the extreme physical conditions that give rise to these phenomena. We present ALMA observations of He 2-10 that reveal the properties of the molecular clouds in this galaxy by tracing HCN(1-0), HCO+(1-0), and CCH(1-0) in combination with SMA observations of CO(2-1). Curiously, we find that these molecular tracers are not well-correlated, which is quantified with a principle component analysis. The data also indicate that the molecular clouds that have not yet begun star formation may be subject to extremely high external pressures. Here we will discuss how the properties of this galaxy can provide insight into star formation in the earlier universe.