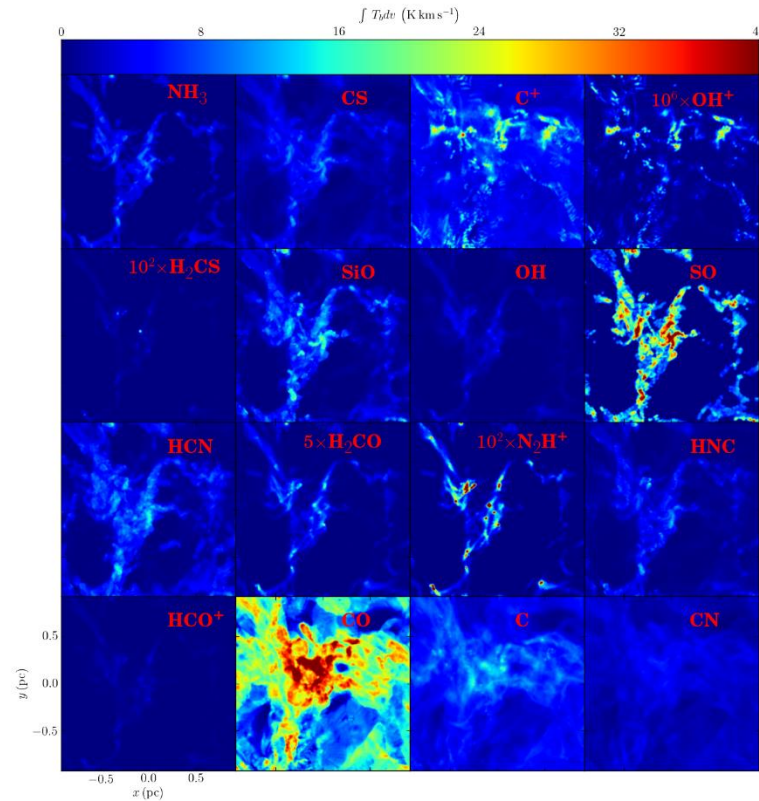


# Astrochemical Correlations in Molecular Clouds

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Hydrodynamics → Astrochemistry → Synthetic Observations → Analysis



Integrated Line Emission

$M = 600 M_{\text{sun}}$

$t \approx 1 t_{\text{ff}}$

$N_{\text{chem}} = 215$

$L = 2 \text{ pc}$

$T \approx 10 \text{ K}$

$$S(l) \approx S_0 l^\alpha$$

**Spectral Correlation Function (SCF):**  
Measures rms difference between spectra separated by some length scale.

