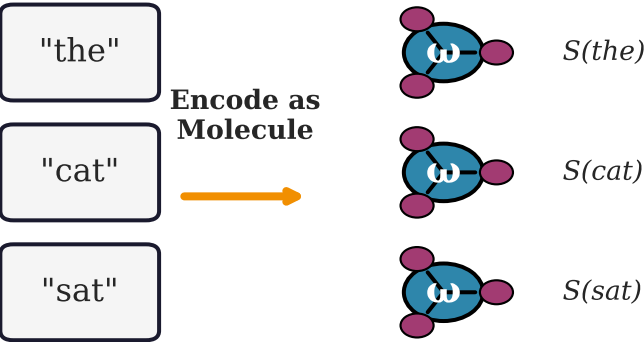
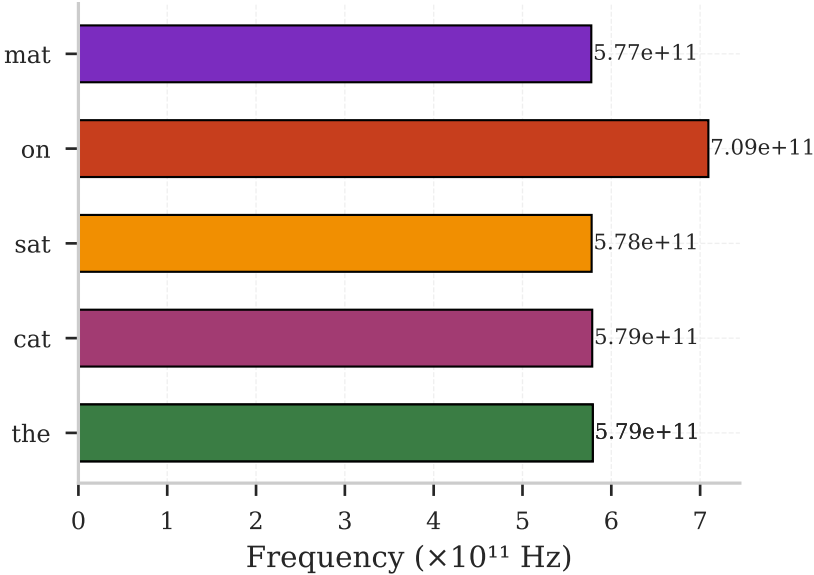


Molecular Semantics: Understanding Through Structure Prediction
Words as Virtual Molecules • Harmonic Coincidence Networks

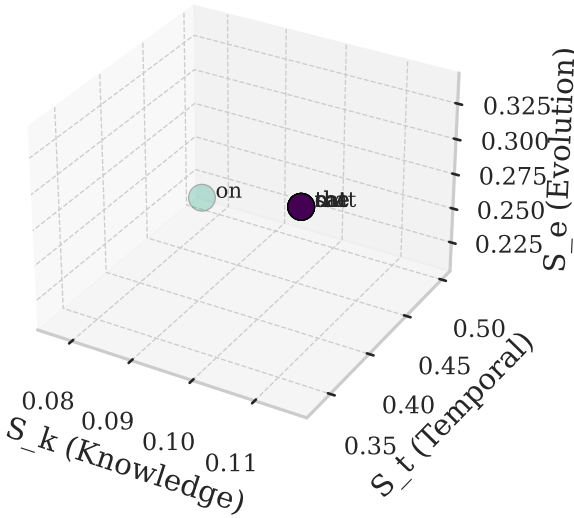
A. Word-Molecule Encoding



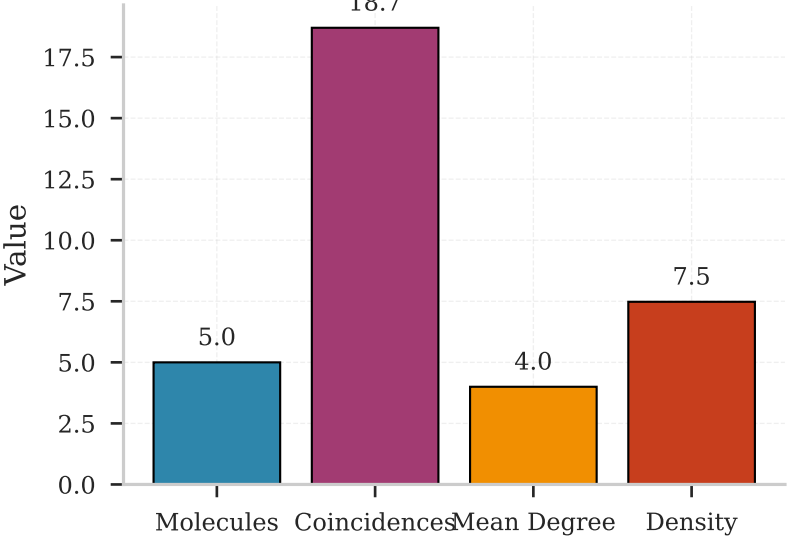
B. Vibrational Frequencies



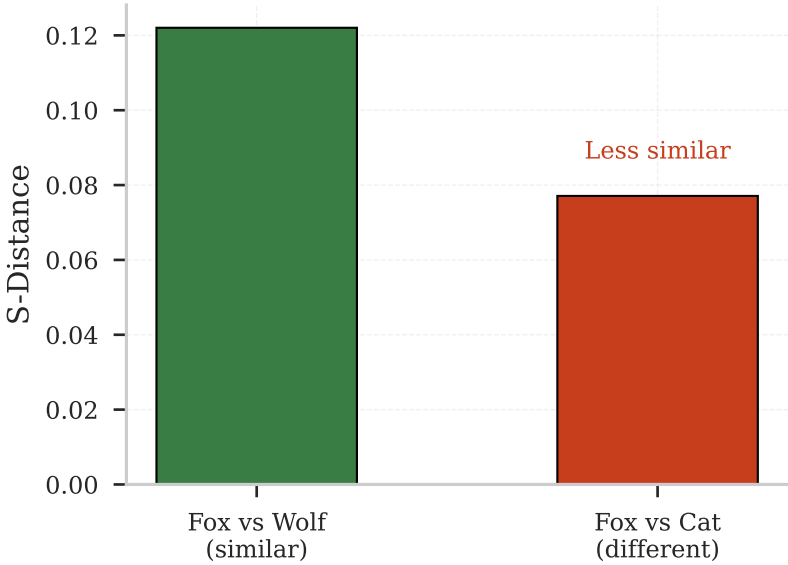
C. S-Entropy Space



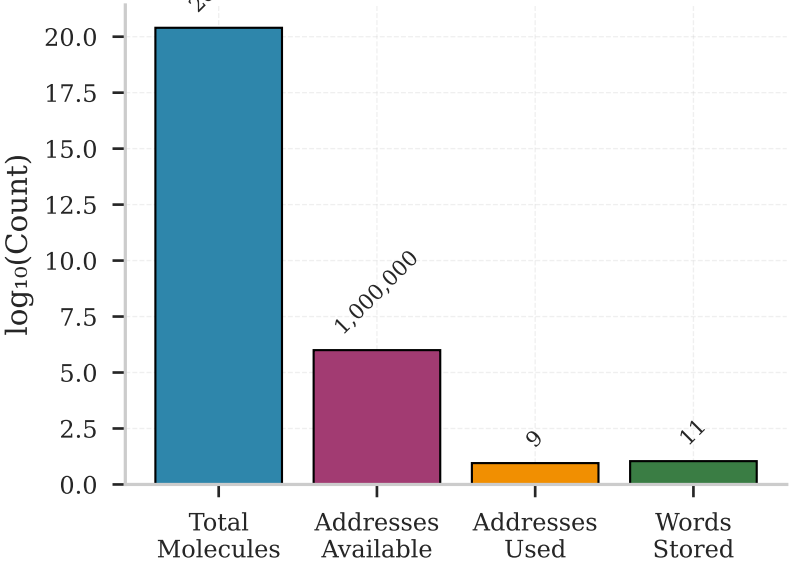
D. Harmonic Network



E. Semantic Distance



F. Atmospheric Memory



G. Traditional LLM vs Molecular Semantics Architecture

Traditional LLM



Molecular Semantics



Aspect

Parameters
Training
Complexity
Energy

Traditional

10^9 - 10^{12}
Petabytes
 $O(n^2)$
High

Molecular

0
None
 $O(\log n)$
Landauer limit