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GOTHAM and ARKHAM: First results from programs to explore aromatic chemistry at the earliest stages of star formation

I will present an overview of the GOTHAM (GBT Observations of TMC-1: Hunting Aromatic Molecules) and ARKHAM (A Rigorous K-band Hunt for Aromatic Molecules) projects on the 100 m Green Bank Telescope, and a number of first results. These observations, prompted by the earlier detection of benzonitrile ($c\text{-C}_6\text{H}_5\text{CN}$) in TMC-1, are designed to probe the extent of hidden chemical complexity at the earliest stages of the star formation process. I will present several new molecular detections in TMC-1, comment on the prospects for probing additional aromatic chemistry in this source, and discuss the apparently widespread nature of benzonitrile through the early protostellar phase of star formation.