



## A Continuous Supersonic Expansion Discharge Source for the Production of Cold Molecular Ions

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Supersonic expansion discharge sources have been widely used to produce molecular ions at temperatures comparable to those found in the interstellar medium. Nearly all of these sources, however, rely on pulsed operation, increasing the difficulty of acquiring a high-resolution spectrum. As part of the SCRIBES (Sensitive, Cooled, Resolved Ion BEam Spectroscopy) technique being developed in our lab, a continuously-operating supersonic expansion discharge source has been constructed. Its operation and performance will be discussed, as well as the application of supersonic expansions to laboratory spectroscopy of astrochemically important molecules.

