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Improving cryogenic buffer-gas beam collimation with de Laval nozzles¹ DAVID LANCASTER, CAMERON ALLEN, KYLAN JERSEY, THOMAS LANCASTER, GAGE SHAW, MCKENZIE TAYLOR, DI XIAO, University of Nevada, Reno, NICHOLAS HUTZLER, California Institute of Technology, JONATHAN WEINSTEIN, University of Nevada, Reno — Cryogenic buffer-gas beam sources produce extremely high fluxes of cold molecular radicals. By using a converging-diverging nozzle, we have observed improved collimation and higher fluxes per solid angle. The beam properties were tested with atomic titanium and ytterbium; progress towards producing guided beams of CH radicals will be discussed.

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