

Abstract Submitted
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Simultaneous K and Cs trapping and prospect for ultracold polar molecules DANIEL BARKER, MATTIE WHITMORE, MARIN PICHLER, Physics Department, Goucher College, Baltimore MD 21204 — We report on progress towards simultaneous cooling and trapping of K and Cs atoms. The main objective is to produce sufficient densities in overlapping trapped species to perform photoassociation of ultracold KCs molecules. We rely on separate diode lasers systems for cooling and repumping transitions for both Cs and K. A tapered laser amplifier for K cooling is currently being built. The photoassociation, ground-state molecule production and resonant multi-photon detection schemes will be presented and possible applications will be discussed.

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