Experimental progress towards investigation of ultracold KCs molecules

DANIEL BARKER, MYRRHA ANDERSEN, JOSEPH POREMBSKI, MARIN PICHLER, Goucher College — We report on progress towards simultaneous cooling and trapping of K and Cs atoms with the objective to produce ultracold KCs molecules, for spectral investigation. Our system consists of separate lasers for cooling and repumping transitions for both species and a simple locking scheme. We present the photoassociation and resonant multi-photon detection schemes, and discuss possible applications.

1Supported by Research Corporation and Goucher College