Design and performance of an optimized dual-species Zeeman slower
RYAN OLF, G. EDWARD MARTI, DAN STAMPER-KURN, Department of Physics, University of California, Berkeley — An increasing number of experiments cool and trap multiple atomic species both simultaneously and alternatively. We present a Zeeman slower optimized for dual species operation via precise winding of multiple sections targeted at the individual species, with only marginally reduced performance than a slower designed for each species individually. The currently constructed slower is optimized for Li and Rb atoms emerging from a dual-species oven and eventually captured by a MOT, though other atomic mixtures are discussed. Design, construction, and performance results and considerations are shown.

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