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Zeeman Slower for Fermionic Potassium Atoms with Natural Abundance Sample YE-RYOUNG LEE, PETER ZARTH, Massachusetts Institute of Technology, MARTIN WEITZ, University of Tübingen, WOLFGANG KETTERLE, Massachusetts Institute of Technology — We present a new atomic source for ^{40}K based on a Zeeman slower using natural abundance potassium. This method has practical and technical advantages over the conventional method of using enriched potassium. At the position of the ^{40}K MOT, the Zeeman slower has a maximum flux of $2 \cdot 10^7$ atoms/s/cm^2, which is comparable to other techniques. This new atomic source saves expenses by not using enriched ^{40}K samples and simplifies complications in other techniques. Our method serves as a simple and robust ^{40}K source for the studies of fermionic atoms.

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