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Laser Cooled Strontium Source for an Ion Interferometer[1] MARY LYON, JAMES ARCHIBALD, CHRISTOPHER ERICKSON, DALLIN DURFEE, BYU — We present a Strontium-87 magneto-optical trap (MOT) in a Low-Velocity-Intense-Source (LVIS) as the source of cooled, collimated atoms for an ion interferometer. Laser cooling and trapping is accomplished with a 461 nm frequency doubled laser and a pair of permanent magnets. A beam of cooled atoms is produced by passing the atoms through a hole drilled in one of the retroreflecting optics. The atoms are then photo-ionized in a two photon process.

[1]NIST Precision Measurement, NSF

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