

Design of the optical lattice trap as a tool for precision spectroscopy using heavy atoms

Precision spectroscopy of heavy atoms, including francium, is expected to provide insight into the origins of fundamental symmetry violation. The key for achieving high experimental sensitivity is to cool the atoms and trap them within the measurement region. We report on the design of the optical lattice trap that is to be installed in our beamline for production and laser cooling of francium.

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