

Sr lattice clock experiment at VNIIFTRI

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Monday, March 5, at 11 a.m. in the Herbert Walther lecture hall

Status of Strontium optical lattice clock experiment at Russian National Metrology Institute VNIIFTRI will be reported. Alkaline earth strontium atoms are laser cooled and trapped in magneto-optical trap using strong cooling transition $1S_0-1P_1$ (461 nm). Two different methods for second cooling stage are discussed. About 10^4 atoms are further cooled at the narrow transition $1S_0-3P_1$ (689 nm) and loaded in the 1D optical lattice formed at the “magic” wavelength (813 nm). Development of time and frequency standards at VNIIFRTI is briefly reviewed.