

Abstract Submitted
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Spectroscopy of Francium, recent developments at TRIUMF¹ J. ZHANG, L.A. OROZCO, JQI, Physics, UMD and NIST, College Park, MD 20742, USA, R. COLLISTER, G. GWINNER, Physics, University of Manitoba, Winnipeg, MB R3T 2N2, Canada, M. TANDECKI, J.A. BEHR, M.R. PEARSON, TRIUMF, Vancouver, BC V6T 2A3, Canada, E. GOMEZ, Instituto de Fisica, UASLP, San Luis Potosi 78290, Mexico, S. AUBIN, Physics, College of William and Mary, Williamsburg, VA 23197, USA, FRPNC COLLABORATION — We present the current results of our program of precision spectroscopy on Francium using the recently commissioned Francium Trapping Facility at TRIUMF during two runs. The measurements include $7P_{1/2}$ state hyperfine splitting of isotopes $^{206-213,221}\text{Fr}$ as well as isotope shift measurements on the $7S_{1/2} \rightarrow 7P_{1/2}$ ($D1$) transition. The statistical and systematic errors are small enough that measurements can provide information needed to understand future work on weak interaction physics using microwave and optical excitation of parity non conserving transitions.

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