
 $^{93}\text{Nb}(\text{p,pn})$ [2009Ch25](#)

<u>Type</u>	<u>Author</u>	<u>History Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	Coral M. Baglin	NDS 113, 2187 (2012)	15-Sep-2012

Optical pumping in an ion beam cooler buncher, laser spectroscopy JYFL IGISOL facility.

^{93}Nb beam was produced at $E=33$ MeV. A natural Nb foil provided stable ions as a spectroscopic reference. The reaction products were mass analyzed in bunches while the central axis of the ion beam cooler was illuminated by laser light. Measured magnetic dipole moment, spectroscopic electric quadrupole moment and charge radius from the hfs coefficients, using the known moments of ^{93}Nb as a calibration.

 ^{92}Nb Levels

<u>E(level)</u>	<u>J^π</u>	<u>Comments</u>
0	7^+	$\mu=+5.136\ 4$ (2009Ch25); $Q=-0.35\ 3$ (2009Ch25) $\Delta\langle r^2 \rangle(^{91}\text{gNb}, ^{92}\text{Nb})=+0.127\ \text{fm}^2\ 3$ (2009Ch25). J^π : from Adopted Levels.