^{100}Ru(p,p′) 1989Si15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 172, 1 (2021)	31-Jan-2021

1989Si15: E=16 MeV proton beam was produced from the Sao Paulo tandem. Target was 23 μg/cm^2 isotopically enriched ^{100}Ru on a thin carbon backing. Scattered protons were momentum-analyzed with a split-pole magnetic spectrograph (FWHM=9 keV) and detected with nuclear emulsions. Measured $\sigma(\theta)$. Deduced levels, deformation parameters, L-transfers from DWBA analysis. Also M.Sc. thesis by S. Sirota, University of Sao Paulo (1987).

^{100}Ru Levels

E(level)[†]	L	Comments
2166 *3*	3	
2367 *3*	4	β_4=0.10. 1989Si15 identify this level as a hexadecapole excitation from large β_4 value. The $\sigma(\theta)$ data interpreted by a single-step mechanism. The authors did not consider a possible two-step mechanism.

[†] Other levels must be populated in this reaction (in the thesis by the author of 1989Si15) but 1989Si15 discuss only two levels with L=3 and 4, respectively.