^{93}Nb(π^+,π^-) 1994Mo04,1993Ka03,1991Mo15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 112,1163 (2011)	15-Dec-2010

Others: 1989Mo09, 1998Pa19, 2000Dr19.
See 1991Fo02 for discussion of this reaction.
1998Pa19, 2000Dr19: T_π=30-60 MeV; θ(lab)=17.6°, 30.4°, 45.2°, 65.1°; measured $\sigma(\theta)$ for transitions to g.s. and to double isobaric analog resonance (50 MeV only).
1994Mo04: T_π=295 MeV; θ(lab)=5°, 10°, 15°, 20°, 25°, 30°; measured $\sigma(\theta)$ for 34 MeV and 47 MeV resonances.
1993Ka03: T_π=164, 230, 293.7 MeV. Observed double IAS and GDR isobaric analog resonances, and possibly discrete levels.
1991Mo15: T_π=295 MeV; θ(lab)=5°, 10°, 15°, 20°, 30°; measured E and $\sigma(\theta)$ for double-isobaric analog resonance and 15 MeV resonance.

^{93}Tc Levels

E(level)†	$T_{1/2}$†	Comments
0 *90*		
9.54×10^3 *19*		a $T_<$ resonance.
11.79×10^3 *19*		a $T_<$ resonance.
15.08×10^3 *7*		a $T_<$ resonance.
16.86×10^3 *9*		a $T_<$ resonance.
19.53×10^3 *2*		E(level): double-isobaric analog resonance; not a discrete level. E=19.3, Γ comparable with ΔE due to target thickness in 1994Mo04.
20.48×10^3 *11*		a $T_>$ resonance.
33.73×10^3 *26*	5.1 MeV *11*	GDR coupled to IAS; not a discrete level. E=33.2 MeV, Γ=5.8 MeV, $\sigma(\theta)$ has D shape in 1994Mo04.
47.3×10^3		E from 1994Mo04. Resonance interpreted by 1994Mo04 as double dipole resonance; $\sigma(\theta)$ has Q shape; Γ≈8-10 MeV (1994Mo04).

† From 1993Ka03.