^{78}Se(p,p) IAR 1968Ba23,1968Zi03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 135, 193 (2016)	31-May-2016

Other: 1962An02.

Reactions: ^{78}Se(p,n) E=4.4-5.7 MeV (1968Ba23, 1968Zi03) ^{78}Se(p,p) (1968Ba23). L-transfers and S-factors deduced for three analog resonances from ^{78}Se(p,p) reaction.

The authors compared with ^{78}Se(d,p) experiment (1965Li08). The evaluators have included 1978Mo12 also in comparing results. See Adopted Levels for ^{79}Se for this comparison.

Coulomb displacement energy=10.45 MeV *2* (1968Ba23); 10.50 MeV *5* (1968Zi03). Calculated value=10.44 MeV.

^{79}Br Levels

L-values and S-factors are from ^{78}Se(p,p) (1968Ba23).

S(p)=6327.6 *38*.

E(level)[†]	L	S	Comments
10846[‡]			E(level): reported by 1968Zi03 only. IAR of 975, 3/2$^-$ in ^{79}Se. E(p)(lab)=4578, Γ(total)=28 keV *6*.
10969 *11*	0	0.98	E(level): IAR of 1156, 1/2$^+$ in ^{79}Se. 1968Zi03 report a doublet near this energy with values of 10945 and 10976. S: in ^{78}Se(d,p) S=0.47 (1978Mo12), 0.66 (1965Li08). E(p)(lab)=4694 (^{78}Se(p,p)); 4697 (^{78}Se(p,n), 1968Ba23); 4676, 4707 (1968Zi03). Γ(total)=43 keV *5* (^{78}Se(p,p)); 46 keV *10* (^{78}Se(p,n),1968Ba23).
11080 *11*	2	0.30	E(level): IAR of 1253, 5/2$^+$ in ^{79}Se. S: for J=5/2. In ^{78}Se(d,p) S=0.24 (1978Mo12), 0.34 (1965Li08). E(p)(lab)=4808 (^{78}Se(p,p)); 4810 (^{78}Se(p,n), 1968Ba23); 4807 (1968Zi03). Γ(total)=24 keV *9* (^{78}Se(p,p)); 38 keV *10* (^{78}Se(p,n), 1968Ba23); 35 keV *7* (1968Zi03).
11355 *11*	0	0.081	E(level): IAR of 1491, 1/2$^+$ in ^{79}Se. S: in ^{78}Se(d,p) S=0.04 (1978Mo12), 0.066 (1965Li08). E(p)(lab)=5089 (^{78}Se(p,p)); 5088 (^{78}Se(p,n), 1968Ba23); 5086 (1968Zi03). Γ(total)=16 keV *5* (^{78}Se(p,p)); 35 keV *10* (^{78}Se(p,n), 1968Ba23); 30 keV *6* (1968Zi03).
11434[‡] *11*			E(level): IAR of 1597, 3/2$^+$ in ^{79}Se. E(p)(lab)=5168 (1968Ba23), 5143 (1968Zi03). Γ(total)=35 keV *10* (1968Ba23), 45 keV *8* (1968Zi03).
11560[‡] *11*			E(level): IAR of 1662, 5/2$^+$ in ^{79}Se. E(p)(lab)=5296 (1968Ba23).
11626[‡] *11*			E(level): IAR of 1739, 3/2$^+$ in ^{79}Se. E(p)(lab)=5363 (1968Ba23).
11834[‡]			E(level): reported by 1968Zi03 only. IAR of 2039, (1/2$^-$,3/2$^-$) in ^{79}Se. E(p)(lab)=5608 (1968Zi03).

[†] From 1968Ba23, unless otherwise stated. E(level)=Ep(c.m.)+S(p), where S(p)=6331.1 *13* (2012Wa38).

[‡] Seen in ^{78}Se(p,n) only.