

$^{80}\text{Se}(\text{p,d})$ 1979Ba61,1978K112

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

1979Ba61: E=33 MeV. $\sigma(\theta)$ data from 15° to 60° (C.M.). Surface barrier detectors. Absolute cross sections accurate to $\approx 15\%$. DWBA analysis.

1978K112: E=22.8 MeV. $\sigma(\theta)$ data from 10° to 55° (lab). Magnetic spectrograph with helical cathode proportional counters. FWHM ≈ 14 keV. DWBA analysis.

1982Zu04: E=15-16 MeV. Measured Q value = -7687.6 30.

 ^{79}Se Levels

| E(level) [‡] | J π [†] | L | S [#] | Comments |
|-----------------------|----------------------|-----|----------------|--|
| 0 | 7/2 ⁺ | 4 | 0.128 | |
| 96 5 | 1/2 ⁻ | 1 | 0.86 | |
| 137 5 | 9/2 ⁺ | 4 | 4.66 | S: 2.06 (1979Ba61). |
| 363 5 | 5/2 ⁻ | 3 | 2.25 | |
| 525 5 | 3/2 ⁻ | 1 | 0.528 | |
| 625 5 | 5/2 ⁺ | 2 | 0.100 | |
| 722 5 | 5/2 ⁺ | 2 | 0.185 | |
| 970 5 | 3/2 ⁻ | 1 | 1.25 | |
| 1070 5 | | | | Reported by 1978K112 only. |
| 1105 5 | | 4 | 0.787 | S: for J π =7/2 ⁺ . S=0.450 for J π =9/2 ⁺ . |
| 1153 5 | | 0+2 | 0.083 | E(level): doublet with 85% L=0 and 15% L=2. S: for L=0. For L=2, S=0.054 for 3/2 ⁺ and 0.044 for 5/2 ⁺ . |
| 1249 5 | | 2+4 | | E(level): doublet with 30% L=2 and 70% L=4. S: for L=2, S=0.018 for 3/2 ⁺ and 0.015 for 5/2 ⁺ . For L=4, S=0.143 for 7/2 ⁺ and 0.083 for 9/2 ⁺ . |
| 1307 5 | | 2+4 | | E(level): reported by 1978K112 only. Doublet with 10% L=2 and 90% L=4. S: for L=2, S=0.020 for 3/2 ⁺ and 0.017 for 5/2 ⁺ . For L=4, S=0.279 for 7/2 ⁺ and 0.160 for 9/2 ⁺ . |
| 1328 10 | | (3) | 0.26 | |
| 1385 10 | | (3) | 0.16 | |
| 1561 25 | | | | |
| 1674 10 | | (2) | 0.02 | |
| 1743 25 | | | | |
| 1817 10 | | (3) | 0.43 | |
| 1878 25 | | | | |
| 1964 10 | | 1 | 0.16 | |
| 2037 25 | | 1 | 0.17 | |
| 2092 10 | | 3 | 0.45 | |
| 2212 25 | | (2) | 0.08 | |
| 2618 25 | | | | |
| 2722 25 | | | | |
| 2878 25 | | | | |

[†] From Adopted Levels.

[‡] Below the 1307 level, energies are from 1978K112. Above this energy, levels were reported by 1979Ba61 only.

[#] Below the 1307 level, values are from 1978K112.