

⁸⁸Sr(e,e') 1982VaZI,1968Pe02

| Type | Author | History | Citation | Literature Cutoff Date |
|-----------------|------------------------------------|---------|---------------------|------------------------|
| Full Evaluation | E. A. Mccutchan and A. A. Sonzogni | | NDS 115, 135 (2014) | 1-Nov-2013 |

1982VaZI: E=23.7 MeV to 49.9 MeV (Darmstadt). Measured $\sigma(\theta)$ using double-focusing spectrometer and 36 overlapping scintillators (FWHM=32-100 keV). E=70 MeV to 370 MeV (Bates Lab, MIT). Measured $\sigma(\theta)$ using a high resolution energy loss spectrometer, drift chamber, multiwire proportional counter and two Cherenkov counters (FWHM=20-40 keV). The adopted results are a synthesis of both measurements. Measurements are partially published in [1984Va16](#) and [1982Va05](#).

Others: [1974Fi05](#) (E=45 MeV to 121 MeV), [1968Pe02](#) (E=75 MeV), [1956He83](#).

Transition charge densities: [1983Sc01](#) and [1982VaZI](#).

Theoretical: [1985Co10](#), [1985He04](#).

⁸⁸Sr Levels

| E(level) [†] | J π [‡] | Comments |
|---------------------------|----------------------|--|
| 0 | | |
| 1836 [@] 10 | 2 ⁺ | B(E2) \uparrow =0.085 7 B(E2) \uparrow : weighted average of 0.0822 24 (1974Fi05) and 0.099 5 (1968Pe02). Other: 0.140 10 (1956He83). |
| 2734 7 | 3 ⁻ | B(E3) \uparrow =0.0728 4 B(E3) from 1982VaZI (Bates measurement). Other: 0.068 4 (1982VaZI , Darmstadt measurement), 0.062 4 (1974Fi05), 0.081 3 (1968Pe02). |
| 3151 7 | | |
| 3219 7 | 2 ⁺ # | B(E2) \uparrow =0.0014 7 B(E2) \uparrow : From 1982VaZI . |
| 3486 ^a 7 | 1 ⁺ | |
| 3585 [@] 10 | 5 ⁻ | |
| 3634 7 | 3 ⁺ | |
| 3953 7 | 4 ⁻ | |
| 3990 ^{@&} 10 | | |
| 4034 7 | | B(E2) \uparrow =0.013 7 B(E2) \uparrow : From 1982VaZI . Other: 0.019 4 (1968Pe02). |
| 4170 ^b | 5 ⁻ | |
| 4225 7 | 3 ⁻ | |
| 4269 ^b | | |
| 4300 ^b | 4 ⁺ | |
| 4355 ^{ab} | | |
| 4368 ^b | 7 ⁻ | |
| 4414 ^b | | |
| 4441 ^b | (4 ⁺) | Possibly doublet since form factor shows no clear 4 ⁺ distribution and energies determined from forward and backward scattering seem to be discrepant. |
| 4485 ^{&b} | | |
| 4514 ^b | | |
| 4622 ^{ab} | | |
| 4695 7 | | |
| 4743 ^b | 6 ⁻ | |
| 4765 7 | 2 ⁺ # | B(E2) \uparrow =0.0016 8 B(E2) \uparrow : From 1982VaZI . |
| 4801 ^{&b} | | |
| 4846 ^{ab} | | |
| 4873 ^b | 4 ⁺ | |
| 4927 ^b | | |
| 4987 7 | | |

Continued on next page (footnotes at end of table)

$^{88}\text{Sr}(e,e')$ **1982VaZI,1968Pe02** (continued) ^{88}Sr Levels (continued)

| E(level) [†] | $J^{\pi\ddagger}$ | Comments |
|-------------------------|-------------------|--|
| 5011 ^{ab} | | |
| 5087 ^{& 7} | | |
| 5109 ^{ab} | 7 ⁺ | |
| 5119 7 | 2 ⁻ | |
| 5168 7 | | |
| 5258 ^b | | |
| 5321 ^b | | |
| 5416 ^{&b} | | |
| 5465 ^b | | |
| 5486 ^{&b} | | |
| 5518 ^b | | |
| 5529 ^b | | |
| 5655 ^{&b} | 8 ⁺ | |
| 5680 7 | | |
| 5728 ^b | | |
| 5772 ^{&b} | | |
| 5806 ^{& 7} | | |
| 5821 ^{a 7} | | |
| 5859 ^b | | |
| 5925 ^{ab} | | |
| 5951 ^b | | |
| 5996 7 | | |
| 6034 ^{&b} | | |
| 6047 ^b | | |
| 6106 ^b | | |
| 6123 7 | | |
| 6135 7 | | |
| 6199 7 | 2 ⁻ | |
| 6350 7 | | |
| 6411 7 | | |
| 6498 7 | | B(E2)=0.013 3 if J=2, B(E3)=0.013 3 if J=3 (1968Pe02). |
| 6558 7 | | |
| 6593 7 | | |
| 7.0×10 ^{3c} | | |
| 7.3×10 ^{3c} | | |
| 7.75×10 ^{3c} | | |

[†] From 1982VaZI (Darmstadt), if not indicated otherwise.

[‡] From distorted-wave analysis of the form factors (1982VaZI). Agreement with other experiments is not very good (see Adopted Levels levels) so J^{π} 's are not considered for the adopted values.

Assignment uncertain since only two data points in forward direction are measured.

@ From 1982VaZI (Bates).

& Only observed in forward direction.

^a Only observed in backward direction.

^b Observed by 1982VaZI (Bates). E from Adopted Levels.

^c From 1968Pe02.