

^{123}Cs $Z = 55$ $N = 68$ adopted link ENSDF link

Based on ENSDF from Oct 2022, and mass evaluation from 2020

BE = 1030.787 (0.012) MeV

Qbeta+ = 4.205 (0.015) MeV

| | Energy T | J+ | J- | J-other | T1/2 |
|----------|-----------------|----|----|------------------------|----------------|
| ----- | | | | | |
| S-alpha= | -0.309 (0.025) | | | | |
| 123CS 1 | | | | 0.000 1/2(+) | 1 5.86 M 10 |
| 123CS 2 | | | | 0.031 (3/2+) | 2 |
| 123CS 3 | | | | 0.095 5/2(+) | 3 9 NS 3 |
| 123CS 4 | | | | 0.124 (3/2+) | 4 |
| 123CS 5 | | | | 0.147 5/2(+) | 5 |
| 123CS 6 | | | | 0.156 11/2(-) | 6 1.7 S 2 |
| 123CS 7 | | | | 0.215 7/2(-) | 7 |
| 123CS 8 | | | | 0.232 (7/2+) | 8 |
| 123CS 9 | | | | 0.328 (9/2+) | 9 114 NS 5 |
| 123CS 10 | | | | 0.468 (3/2+,5/2+,7/2+) | 10 |
| ----- | | | | | |
| 123CS 11 | | | | 0.475 3/2(-) | 11 |
| 123CS 12 | | | | 0.477 (15/2-) | 12 40 PS 2 |
| 123CS 13 | | | | 0.494 (3/2+,5/2+) | 13 |
| 123CS 14 | | | | 0.525 (1/2+,3/2+,5/2+) | 14 |
| 123CS 15 | | | | 0.558 (1/2+,3/2+,5/2+) | 15 |
| 123CS 16 | | | | 0.589 (+) | 16 |
| 123CS 17 | | | | 0.597 (11/2+) | 17 6.2 PS 14 |
| 123CS 18 | | | | 0.621 (5/2+) | 18 |
| 123CS 19 | | | | 0.660 (11/2+) | 19 18 PS 3 |
| 123CS 20 | | | | 0.699 (5/2+,7/2+,9/2+) | 20 |
| ----- | | | | | |
| 123CS 21 | | | | 0.728 (1/2:7/2)(+) | 21 |
| 123CS 22 | | | | 0.750 (1/2+,3/2+,5/2+) | 22 |
| 123CS 23 | | | | 0.784 (3/2-,5/2-,7/2-) | 23 |
| 123CS 24 | | | | 0.811 (3/2+,5/2+) | 24 |
| 123CS 25 | | | | 0.817 (3/2+,5/2+) | 25 |
| 123CS 26 | | | | 0.866 (3/2+,5/2+) | 26 |
| 123CS 27 | | | | 0.870 (5/2+,7/2+,9/2+) | 27 |
| 123CS 28 | | | | 0.900 (13/2+) | 28 1.8 PS 8 |
| 123CS 29 | | | | 0.905 (3/2+,5/2+) | 29 |
| 123CS 30 | | | | 0.999 (19/2-) | 30 3.2 PS +3-6 |
| ----- | | | | | |
| 123CS 31 | | | | 1.022 (3/2-) | 31 |
| 123CS 32 | | | | 1.049 (3/2+,5/2+) | 32 |
| 123CS 33 | | | | 1.160 (17/2-) | 33 |
| 123CS 34 | | | | 1.237 (15/2+) | 34 |
| 123CS 35 | | | | 1.260 (15/2+) | 35 |
| 123CS 36 | | | | 1.593 (19/2-) | 36 |

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|-------|----|-------|---|--------|-------|---------|----|---------|------|
| 123CS | 37 | | | | 1.605 | (17/2+) | 37 | | |
| 123CS | 38 | | | | 1.685 | (23/2-) | 38 | 1.2 PS | 6 |
| 123CS | 39 | | | | 1.730 | (21/2-) | 39 | 1.7 PS | LE |
| 123CS | 40 | | | | 1.995 | (19/2+) | 40 | | |
| ----- | | | | | | | | | |
| 123CS | 41 | | | | 2.004 | (19/2+) | 41 | | |
| 123CS | 42 | | | | 2.196 | (23/2-) | 42 | | |
| 123CS | 43 | | | | 2.220 | (19/2+) | 43 | | |
| 123CS | 44 | | | | 2.411 | (21/2+) | 44 | | |
| 123CS | 45 | | | | 2.436 | (25/2-) | 45 | | |
| 123CS | 46 | | | | 2.446 | (21/2+) | 46 | | |
| 123CS | 47 | | | | 2.485 | (27/2-) | 47 | 0.34 PS | 6 |
| 123CS | 48 | | | | 2.706 | (23/2+) | 48 | | |
| 123CS | 49 | | | | 2.821 | (23/2+) | 49 | | |
| 123CS | 50 | | | | 2.844 | (23/2+) | 50 | | |
| ----- | | | | | | | | | |
| 123CS | 51 | | | | 2.918 | (27/2-) | 51 | | |
| 123CS | 52 | | | | 2.973 | (25/2+) | 52 | | |
| S-p | = | 2.978 | (| 0.016) | ----- | | | | |
| 123CS | 53 | | | | 3.046 | (25/2+) | 53 | | |
| 123CS | 54 | | | | 3.227 | (29/2-) | 54 | | |
| 123CS | 55 | | | | 3.305 | (27/2+) | 55 | | |
| 123CS | 56 | | | | 3.330 | (27/2+) | 56 | | |
| 123CS | 57 | | | | 3.353 | (31/2-) | 57 | 0.23 PS | 4 |
| 123CS | 58 | | | | 3.618 | (29/2+) | 58 | | |
| 123CS | 59 | | | | 3.729 | (31/2-) | 59 | | |
| 123CS | 60 | | | | 3.995 | (31/2+) | 60 | | |
| ----- | | | | | | | | | |
| 123CS | 61 | | | | 4.045 | (31/2+) | 61 | | |
| 123CS | 62 | | | | 4.055 | (33/2-) | 62 | | |
| 123CS | 63 | | | | 4.258 | (35/2-) | 63 | 0.22 PS | +4-5 |
| 123CS | 64 | | | | 4.408 | (33/2+) | 64 | | |
| 123CS | 65 | | | | 4.621 | (35/2-) | 65 | | |
| 123CS | 66 | | | | 4.834 | (35/2+) | 66 | | |
| 123CS | 67 | | | | 4.863 | (35/2+) | 67 | | |
| 123CS | 68 | | | | 4.934 | (37/2-) | 68 | | |
| 123CS | 69 | | | | 5.214 | (39/2-) | 69 | 0.30 PS | 5 |
| 123CS | 70 | | | | 5.246 | | 70 | | |
| ----- | | | | | | | | | |
| 123CS | 71 | | | | 5.334 | (37/2+) | 71 | | |
| 123CS | 72 | | | | 5.597 | (39/2-) | 72 | | |
| 123CS | 73 | | | | 5.752 | (39/2+) | 73 | | |
| 123CS | 74 | | | | 5.793 | (39/2+) | 74 | | |
| 123CS | 75 | | | | 5.905 | (41/2-) | 75 | | |
| 123CS | 76 | | | | 6.240 | (43/2-) | 76 | 0.18 PS | 3 |
| 123CS | 77 | | | | 6.297 | | 77 | | |
| 123CS | 78 | | | | 6.671 | (43/2+) | 78 | | |
| 123CS | 79 | | | | 6.679 | (43/2-) | 79 | | |
| 123CS | 80 | | | | 6.981 | (45/2-) | 80 | | |
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|-------|----|-------|---|--------|-------|---------|----|------|----|------|
| 123CS | 81 | | | | 7.352 | (47/2-) | 81 | 0.10 | PS | 3 |
| 123CS | 82 | | | | 7.414 | | 82 | | | |
| 123CS | 83 | | | | 7.647 | (47/2+) | 83 | | | |
| 123CS | 84 | | | | 7.838 | (47/2-) | 84 | | | |
| 123CS | 85 | | | | 8.159 | (49/2-) | 85 | | | |
| 123CS | 86 | | | | 8.559 | (51/2-) | 86 | 0.10 | PS | +2-3 |
| 123CS | 87 | | | | 8.700 | (51/2+) | 87 | | | |
| ----- | | | | | | | | | | |
| S-2p | = | 9.376 | (| 0.013) | | | | | | |
| 123CS | 88 | | | | 9.436 | (53/2-) | 88 | | | |
| 123CS | 89 | | | | 9.862 | (55/2-) | 89 | | | |
| 123CS | 90 | | | | 9.888 | (55/2+) | 90 | | | |
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S-p = 2.978 (0.016)-----
 S-n = 10.970 (0.036)-----
 S-2p = 9.376 (0.013)-----
 S-2n = 20.084 (0.019)-----
 S-alpha= -0.309 (0.025)-----

S+p = -5.335 (0.017)
 S+n = -8.769 (0.015)
 S+2p = -7.294 (0.029)
 S+2n = -19.189 (0.014)
 S+alpha = 0.723 (0.029)

gap p = -2.357 (0.024)
 gap n = 2.202 (0.039)
 gap 2p = 2.082 (0.031)
 gap 2n = 0.895 (0.024)
 gap alpha = 0.414 (0.038)