

^{91}Nb $Z = 41$ $N = 50$ adopted link ENSDF link

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

BE = 789.052 (0.003) MeV

Qbeta+ = 1.258 (0.003) MeV

| | Energy T | J+ | J- | J-other | T1/2 |
|---------|----------|------|------------|-----------------------|--------------------|
| 91NB 1 | 0.000 | 9/2+ | | | 1 6.8E+2 Y 13 |
| 91NB 2 | | | 0.105 1/2- | | 2 60.86 D 22 |
| 91NB 3 | | | | 1.040 | 3 |
| 91NB 4 | | | 1.187 5/2- | | 4 2.6 PS 11 |
| 91NB 5 | | | 1.313 3/2- | | 5 0.166 PS 17 |
| 91NB 6 | | | | 1.581 (7/2)+ | 6 0.33 PS 3 |
| 91NB 7 | | | 1.613 3/2- | | 7 0.054 PS 12 |
| 91NB 8 | | | | 1.637 (9/2+) | 8 1.8 PS +11-4 |
| 91NB 9 | | | | 1.791 (9/2-) | 9 1.6 PS GT |
| 91NB 10 | | | | 1.845 (5/2)- | 10 1.5 PS GT |
| 91NB 11 | | | | 1.885 (GE7/2) | 11 |
| 91NB 12 | | | | 1.963 (5/2+) | 12 0.18 PS 3 |
| 91NB 13 | | | | 1.984 (13/2-) | 13 10.0 NS 4 |
| 91NB 14 | | | | 2.034 (17/2-) | 14 3.76 US 12 |
| 91NB 15 | | | | 2.065 (GE7/2) | 15 |
| 91NB 16 | | | | 2.121 (7/2-) | 16 1.0 PS GT |
| 91NB 17 | | | | 2.170 (7/2,9/2,11/2) | 17 |
| 91NB 18 | | | | 2.275 (GE7/2) | 18 |
| 91NB 19 | | | | 2.291 (13/2)+ | 19 0.250 PS 21 |
| 91NB 20 | | | | 2.325 (5/2-) | 20 0.111 PS 14 |
| 91NB 21 | | | | 2.330 (11/2)+ | 21 0.104 PS +28-21 |
| 91NB 22 | | | | 2.345 (3/2)- | 22 0.104 PS +21-14 |
| 91NB 23 | | | | 2.390 (3/2+) | 23 1.0 PS +24-5 |
| 91NB 24 | | | | 2.413 (11/2-) | 24 0.65 PS 25 |
| 91NB 25 | | | | 2.531 (11/2-) | 25 0.9 PS +5-3 |
| 91NB 26 | | | | 2.580 (5/2+) | 26 0.55 PS +35-14 |
| 91NB 27 | | | | 2.613 (7/2-) | 27 0.090 PS +21-14 |
| 91NB 28 | | | | 2.632 (9/2) | 28 0.125 PS +35-21 |
| 91NB 29 | | | | 2.660 (15/2-) | 29 14 PS LE |
| 91NB 30 | | | | 2.793 (7/2+) | 30 |
| 91NB 31 | | | | 2.882 (LE7/2) | 31 |
| 91NB 32 | | | | 2.912 | 32 |
| 91NB 33 | | | | 2.970 | 33 |
| 91NB 34 | | | | 2.991 | 34 |
| 91NB 35 | | | | 3.028 7/2,9/2,11/2(+) | 35 |
| 91NB 36 | | | | 3.065 (5/2-) | 36 |
| 91NB 37 | | | | 3.080 (LE7/2) | 37 |

| | | | | | | | | | |
|-------|----|-------|-------|--------|-------|-----------------|-------|---------|-------|
| 91NB | 38 | | | | 3.110 | (17/2)+ | 38 | 0.2 NS | LT |
| 91NB | 39 | | | | 3.126 | (GE7/2) | 39 | | |
| 91NB | 40 | | | | 3.149 | 7/2,9/2,11/2 | 40 | | |
| ----- | | | | | | | | | |
| 91NB | 41 | | | | 3.180 | (3/2)+ | 41 | | |
| 91NB | 42 | | | | 3.187 | 7/2,9/2,11/2 | 42 | | |
| 91NB | 43 | | | | 3.273 | (LE7/2) | 43 | | |
| 91NB | 44 | | | | 3.300 | (GE7/2) | 44 | | |
| 91NB | 45 | | | | 3.329 | | 45 | | |
| 91NB | 46 | | | | 3.370 | 5/2+,7/2+ | 46 | | |
| 91NB | 47 | | | | 3.434 | (5/2)+ | 47 | | |
| 91NB | 48 | | | | 3.462 | (LE7/2) | 48 | | |
| 91NB | 49 | | | | 3.467 | (21/2)+ | 49 | 0.92 NS | 10 |
| 91NB | 50 | | | | 3.562 | (LE7/2) | 50 | | |
| ----- | | | | | | | | | |
| 91NB | 51 | | | | 3.591 | | 51 | | |
| 91NB | 52 | | | | 3.635 | (5/2+,7/2-) | 52 | | |
| 91NB | 53 | | | | 3.697 | (5/2)+ | 53 | | |
| 91NB | 54 | | | | 3.780 | (LE7/2) | 54 | | |
| 91NB | 55 | | | | 3.837 | (7/2,9/2-) | 55 | | |
| 91NB | 56 | | | | 3.887 | 7/2,9/2,11/2(-) | 56 | | |
| 91NB | 57 | | | | 3.917 | 7/2,9/2,11/2 | 57 | | |
| 91NB | 58 | | | | 4.023 | | 58 | | |
| 91NB | 59 | | | | 4.097 | (19/2) | 59 | | |
| 91NB | 60 | | | | 4.112 | | 60 | | |
| ----- | | | | | | | | | |
| 91NB | 61 | | 4.164 | 1/2+ | | | 61 | | |
| 91NB | 62 | | | | 4.181 | 7/2,9/2,11/2 | 62 | | |
| 91NB | 63 | | | | 4.237 | (5/2)+ | 63 | | |
| 91NB | 64 | | | | 4.351 | (21/2) | 64 | | |
| 91NB | 65 | | | | 4.358 | 3/2+,5/2+ | 65 | | |
| 91NB | 66 | | | | 4.404 | | 66 | | |
| 91NB | 67 | | 4.441 | 1/2+ | | | 67 | | |
| 91NB | 68 | | | | 4.546 | 3/2+,5/2+ | 68 | | |
| 91NB | 69 | | | | 4.650 | 3/2+,5/2+ | 69 | | |
| 91NB | 70 | | | | 4.738 | 3/2+,5/2+ | 70 | | |
| ----- | | | | | | | | | |
| 91NB | 71 | | | | 4.817 | 7/2+,9/2+ | 71 | | |
| 91NB | 72 | | | | 4.849 | (23/2+) | 72 | | |
| 91NB | 73 | | | | 4.852 | (21/2) | 73 | | |
| 91NB | 74 | | | | 4.912 | 3/2+,5/2+ | 74 | | |
| 91NB | 75 | | | | 5.010 | 3/2+,5/2+ | 75 | | |
| 91NB | 76 | | | | 5.035 | (25/2+) | 76 | 1.2 NS | 3 |
| 91NB | 77 | | | | 5.068 | 3/2+,5/2+ | 77 | | |
| 91NB | 78 | | | | 5.135 | | 78 | | |
| ----- | | | | | | | | | |
| S-p | = | 5.154 | (| 0.003) | ----- | ----- | ----- | ----- | ----- |
| 91NB | 79 | | | | 5.184 | (23/2+) | 79 | | |
| 91NB | 80 | | | | 5.226 | (1/2+) | 80 | | |
| ----- | | | | | | | | | |
| 91NB | 81 | | | | 5.307 | 3/2+,5/2+ | 81 | | |

| | | | | | | |
|----------|-------|----------|-------|-------|------------------|-----|
| 91NB 82 | | | | 5.350 | (19/2,21/2,23/2) | 82 |
| 91NB 83 | | | | 5.392 | 3/2+,5/2+ | 83 |
| 91NB 84 | | | | 5.456 | (27/2+) | 84 |
| 91NB 85 | | | | 5.502 | 3/2+,5/2+ | 85 |
| 91NB 86 | | | | 5.543 | (21/2-) | 86 |
| 91NB 87 | | 5.622 | 1/2+ | | | 87 |
| 91NB 88 | | 5.685 | 1/2+ | | | 88 |
| 91NB 89 | | 5.788 | 1/2+ | | | 89 |
| 91NB 90 | | | | 5.792 | | 90 |
| ----- | | | | | | |
| 91NB 91 | | 5.840 | 1/2+ | | | 91 |
| 91NB 92 | | | | 5.994 | | 92 |
| 91NB 93 | | | | 6.009 | | 93 |
| 91NB 94 | | | | 6.040 | 7/2+,9/2+ | 94 |
| S-alpha= | 6.045 | (0.003) | ----- | | | |
| 91NB 95 | | | | 6.088 | (25/2+) | 95 |
| 91NB 96 | | | | 6.121 | 3/2+,5/2+ | 96 |
| 91NB 97 | | | | 6.180 | 3/2+,5/2+ | 97 |
| 91NB 98 | | | | 6.215 | (7/2+,9/2+) | 98 |
| 91NB 99 | | | | 6.274 | (LE25/2) | 99 |
| 91NB 100 | | | | 6.286 | | 100 |
| ----- | | | | | | |
| 91NB 101 | | | | 6.345 | | 101 |
| 91NB 102 | | | | 6.406 | | 102 |
| 91NB 103 | | | | 6.519 | (29/2+) | 103 |
| 91NB 104 | | | | 6.529 | + | 104 |
| 91NB 105 | | | | 6.703 | + | 105 |
| 91NB 106 | | | | 6.850 | + | 106 |
| 91NB 107 | | | | 6.919 | (27/2) | 107 |
| 91NB 108 | | | | 6.923 | | 108 |
| 91NB 109 | | 7.007 | 1/2+ | | | 109 |
| 91NB 110 | | | | 7.060 | | 110 |
| ----- | | | | | | |
| 91NB 111 | | | | 7.112 | | 111 |
| 91NB 112 | | | | 7.218 | | 112 |
| 91NB 113 | | | | 7.438 | (31/2+) | 113 |
| 91NB 114 | | | | 8.099 | (33/2+) | 114 |
| 91NB 115 | | | | 8.630 | | 115 |
| 91NB 116 | | | | 8.846 | (37/2+) | 116 |
| 91NB 117 | | | | 9.437 | | 117 |
| 91NB 118 | | | | 9.823 | (5/2)+ | 118 |

24 KEV 2

S-p = 5.154 (0.003)-----
S-n = 12.048 (0.004)-----
S-2p = 13.505 (0.003)-----
S-2n = 22.155 (0.024)-----
S-alpha= 6.045 (0.003)-----

S+p = -7.460 (0.003)

S+n = -7.887 (0.003)
S+2p = -11.546 (0.003)
S+2n = -16.717 (0.003)
S+alpha = -1.808 (0.006)

gap p = -2.305 (0.004)
gap n = 4.161 (0.006)
gap 2p = 1.959 (0.004)
gap 2n = 5.438 (0.024)
gap alpha = 4.236 (0.007)