**Table X.** List of nuclides with calibration of PSF data in two recent ARC data bases

ATLAS\_f(L)\_ARC\_2017 and **ATLAS\_f(L)\_ARC\_2019**

<E> - the mean energy of the energy interval of transitions used for the calibration

<f(E1)> - PSF values derived from DRC or systematic**, bold values** adopted

<f(E1)> - PSF values derived from DRC experiments disregarded as doubtful

M1 **-** No E1 transitions present, M1 systematic used instead

F - f(L)\_ARC19/f(L)\_ARC17 normalization ratio

SYS16 - f(E1) systematics from INDC(NED)-13, 2016

SYS18 - f(E1) systematics from INDC(NDS)-0772, 2018

Bold values - used for calibration

EXP values - in brackets disregarded for calibration

\*) - no differential data available; EXP17 adopted

\*\*) - data source not found, EXP17 value disregarded in ARC19

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | calibration | calibration | F | calibration | calibration |
| Nucleus | n-beam | <E> | <f(E1)>  E1 DRC EXP | <f(E1)>  E1 DRC SYS16 |  | <f(E1)>  E1 DRC EXP | <f(E1)>  E1 DRC SYS18 |
|  |  | MeV | 10-8MeV-3 | 10-8MeV-3 |  | 10-8MeV-3 | 10-8MeV-3 |
|  |  |  | ARC 17 |  |  | ARC19 |  |
| As-76 | Sc | 6.7 |  | **2.44** | 1.18 |  | **2.89** |
| Zr-92 | Sc | 6.2 |  | **1.14 M1** | 0.25 |  | **0.28** M1 |
| Mo-96 | Sc | 6.1 |  | **3.58** | 1.15 |  | **4.12** |
| Mo-98 | Sc | 6.6 |  | **3.70** | 1.15 |  | **4.25** |
| Ru-102 | Sc | 6.8 |  | **3.95** | 1.15 |  | **4.52** |
| Pd-106 | B | 7.2 | **4.14** | 4.29 | 0.93 | **3.87** | 4.79 |
| Pd-109 | Sc | 5.9 |  | **1.29 M1** | 0.93 |  | **1.20 M1** |
| Cd-114 | Sc | 6.2 |  | **4.73** | 1.13 |  | **5.35** |
| Te-124 | Sc | 7.1 |  | **1.44M1** | 0.88 |  | **1.27 M1** |
| I-128 | Sc | 6.6 | (1.9) | **5.71** | 1.12 | **8.54** | 6.38 |
| Ba-135 | Sc | 5.1 |  | **6.23** | 1.11 |  | **6.92** |
| Ba-136 | Sc | 6.6 | **5.0** | 6.31 | 1.23 | **6.17** | 7.00 |
| Nd-146 | B | 6.4 | **4.5** | 7.08 | 1.00 | **4.5** \*) | 7.80 |
| Sm-148 | B | 6.5 | **4.5** | **7.24** | 1.10 | (4.5\*) | **7.96** |
| Sm-150 | B | 6.3 | **7.83** | **7.40** | 1.10 | **7.83**\*) | 8.12 |
| Sm-155 | Sc | 5.4 |  | **7.81** | 1.09 |  | **8.54** |
| Eu-154 | Sc | 7.9 |  | **7.72** | 1.09 |  | **8.45** |
| Gd-155 | Sc | 5.9 | **8.7** | 7.81 | 1.o1 | **8.81** | 8.54 |
| Gd-156 | B | 7.4 |  | **7.89** | 1.09 |  | **8.62** |
| Gd-157 | Sc | 5.9 | **12.4 \*\*)** | 7.97 | 0.7 |  | **8.71** |
| Gd-158 | B | 6.4 |  | **8.05** | 1.09 |  | **8.79** |
| Gd-159 | Sc | 5.4 | **8.81** | 8.14 | 1.04 | **9.21** | 8.88 |
| Dy-162 | Sc | 6.8 |  | **8.39** | 1.09 |  | **9.13** |
| Dy-163 | Sc | 5.7 | **7.26\*\***) | 8.47 | 1.27 |  | **9.22** |
| Dy-164 | Sc | 7.2 | **8.17\*\***) | 8.56 | 1.09 |  | **9.30** |
| Dy-165 | Sc | 5.4 |  | **8.64** | 1.09 |  | **9.39** |
| Ho-166 | B | 6.0 |  | **8.73** | 1.09 |  | **9.48** |
| Er-168 | B | 6.4 | **15.9** | 8.90 | 1.04 | **16.6** | 9.65 |
| Tm-170 | Sc | 6.1 | (4.72) | **9.08** | 1.08 | (6.21) | **9.83** |
| Yb-172 | Sc | 6.8 |  | **9.25** | 1.08 |  | **10.0** |
| Yb-174 | B | 6.6 | **19.4** | 9.43 | 0.52 | (37.8) | **10.18** |
| Lu-176 | Sc | 5.9 | **7.4** | 9.60 | 1.4 | (4.57) | **10.36** |
| Hf-178 | Sc | 6.8 | **18.5** | 9.78 | 0.57 | (31.7) | **10.54** |
| Hf-180 | B | 6.0 |  | **10.00** | 1.08 |  | **10.72** |
| W-184 | B | 6.8 | **28.1** | 10.32 | 0.39 | (36.9) | **11.08** |
| W-185 | Sc | 5.4 |  | **10.42** | 1.07 |  | **11.17** |
| W-187 | Sc | 4.6 |  | **10.60** | 1.07 |  | **11.36** |
| Ta-182 | Sc | 5.8 | **11.3** | 10.14 | 0.81 | **9.2** | 10.90 |
| Os-188 | Sc | 6.3 |  | **10.69** | 1.07 |  | **11.45** |
| Os-189 | Sc | 4.5 |  | **10.79** | 1.07 |  | **11.54** |
| Os-191 | Sc | 5.4 |  | **10.97** | 1.07 |  | **11.73** |
| Os-193 | Sc | 5.5 |  | **11.16** | 1.07 |  | **11.92** |
| Ir-192 | Sc | 6.1 |  | **11.07** | 1.07 |  | **11.82** |
| Ir-194 | Sc | 5.9 |  | **11.25** | 1.07 |  | **12.01** |
| Pt-195 | Sc | 4.9 |  | **11.35** | 1.07 |  | **12.10** |
| Pt-196 | Sc | 6.3 | **17.4** | 10.96 | 1.07 | \*) | **12.20** |
| Pt-197 | Sc | 4.7 |  | **11.06** | 1.07 |  | **12.29** |
| Pt-199 | Sc | 4.6 |  | **11.73** | 1.06 |  | **12.48** |
| Au-198 | Sc | 6.0 | **11.4** | 11.64 | 1.09 | (20) | **12.39** |
| Th-233 | Sc | 4.1 | (20.3) | **15.17** | 1.05 | (33.4) | **15.87** |
| U-236 | Sc | 6.0 | (21.1) | **15.6** | 1.04 | (7.14) | **16.18** |
| U-239 | B | 4.0 | **10.29** | 15.81 | 0.74 | **7.71** | 16.49 |
| Np-238 | Sc | 5.3 |  | **15.71** | 1.04 |  | **16.34** |
| Pu-240 | Sc | 5.6 | **19.9** | 15.92 | 0.92 | **18** | 16.60 |