

$^{144}\text{Sm}(\text{d,t})$   $^{1976}\text{Be10}$ 

| Type            | Author                | History | Citation            | Literature Cutoff Date |
|-----------------|-----------------------|---------|---------------------|------------------------|
| Full Evaluation | E. Browne, J. K. Tuli |         | NDS 113, 715 (2012) | 31-May-2011            |

E=26.21 MeV.

Measured:  $\sigma(E,\theta)$ , DWBA analysis; energy resolution 14 keV. $^{143}\text{Sm}$  Levels

| E(level) <sup>†</sup>          | J $\pi$ <sup>@</sup>                | L     | C <sup>2</sup> S | Comments                       |
|--------------------------------|-------------------------------------|-------|------------------|--------------------------------|
| 0.0                            | 3/2 <sup>+</sup>                    | 2     | 4                |                                |
| 110.6                          | 1/2 <sup>+</sup>                    | 0     | 1.7              |                                |
| 755                            | 11/2 <sup>-</sup>                   | 5     | 8.9              |                                |
| 1112                           | 5/2 <sup>+</sup>                    | 2     | 3.4              |                                |
| 1311 <sup>#</sup>              | 7/2 <sup>-</sup>                    | (3)   | 0.06             |                                |
| 1368                           | 7/2 <sup>+</sup>                    | 4     | 1.9              |                                |
| 1539                           | 5/2 <sup>+</sup>                    | 2     | 0.18             |                                |
| 1569 <sup>?</sup> <sup>#</sup> | 3/2 <sup>+</sup>                    | 2     | 0.03             |                                |
| 1670 <sup>#</sup>              |                                     |       |                  |                                |
| 1715 <sup>‡</sup>              | 3/2 <sup>+</sup>                    | 2     | 0.39             |                                |
| 1882 <sup>#</sup>              |                                     |       |                  |                                |
| 1943                           |                                     |       |                  |                                |
| 1958 <sup>‡</sup>              | 5/2 <sup>+</sup> , 7/2 <sup>+</sup> | 2+(4) |                  | C <sup>2</sup> S: 0.025+<0.08. |
| 1999                           | 1/2 <sup>+</sup>                    | 0     | 0.27             |                                |
| 2073                           | 5/2 <sup>+</sup>                    | 2     | 0.48             |                                |
| 2133 <sup>#</sup>              | 5/2 <sup>+</sup>                    | (2)   | 0.02             |                                |
| 2169                           | 7/2 <sup>+</sup>                    | 4     | 1.4              |                                |
| 2207 <sup>#</sup>              | 5/2 <sup>+</sup>                    | 2     | 0.04             |                                |
| 2232 <sup>#</sup>              | 5/2 <sup>+</sup>                    | 2     | 0.02             |                                |
| 2270                           | 7/2 <sup>+</sup>                    | 4     | 0.52             |                                |
| 2294 <sup>#</sup>              | 7/2 <sup>-</sup>                    | (3)   | 0.09             |                                |
| 2323                           |                                     |       |                  |                                |
| 2417                           | 5/2 <sup>+</sup>                    | (2)   | 0.02             |                                |
| 2460                           | 11/2 <sup>-</sup>                   | 5     | 1.6              |                                |
| 2505                           |                                     |       |                  |                                |
| 2590                           | 11/2 <sup>-</sup>                   | 5     | 1.2              |                                |
| 2652 <sup>#</sup>              | 5/2 <sup>+</sup>                    | (2)   | 0.06             |                                |
| 2686                           | 7/2 <sup>+</sup>                    | (4)   | 0.77             |                                |
| 2787                           |                                     |       |                  |                                |
| 2843                           |                                     |       |                  |                                |
| 2876 <sup>#</sup>              |                                     |       |                  |                                |
| 2905                           | 7/2 <sup>+</sup>                    | 4     | 0.37             |                                |
| 2983 <sup>#</sup>              | 5/2 <sup>+</sup>                    | (2)   | 0.06             |                                |
| 3030                           | 7/2 <sup>+</sup> & 3/2 <sup>+</sup> | 4+2   | 1.0+0.09         |                                |
| 3066                           | 1/2 <sup>+</sup>                    | 0     | 0.05             |                                |
| 3154                           | 5/2 <sup>+</sup>                    | 2     | 0.25             |                                |
| 3180                           | 5/2 <sup>+</sup>                    | 2     | 0.13             |                                |
| 3210                           | 5/2 <sup>+</sup>                    | 2     | 0.12             |                                |

<sup>†</sup>  $\Delta E \leq 10$  keV.<sup>‡</sup> Doublet.<sup>#</sup> It could belong to some other Sm isotope.<sup>@</sup> Spins used for C<sup>2</sup>S calculations.