

**Adopted Levels**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 112,1833 (2011)	1-Jan-2011

S(n)=7.2×10<sup>3</sup> *syst*; S(p)=1.4×10<sup>3</sup> *syst*; Q(α)=8.89×10<sup>3</sup> 4 [2012Wa38](#)

Note: Current evaluation has used the following Q record -6136 SY7136 *syst* 1293 *syst* 8888 40 [2011AuZZ,2003Au03](#).

Estimated: ΔQ(β<sup>-</sup>)=332, ΔS(n)=461, ΔS(p)=429 ([2011AuZZ](#)).

**Additional information 1.**

Production, assignment: <sup>209</sup>Bi(<sup>40</sup>Ar,3n) at E=4.78, 4.93, 5.12 MeV/A. Observed sequence of two previously unknown α decays; at E=4.93 MeV/A the 3n-deexcitation channel is expected; products of reaction channels involving emission of charged particles (pxn) and (α xn) do not show the observed decay properties ([1996Ni09](#)).

Activity produced by <sup>209</sup>Bi(<sup>40</sup>Ar,3n), E=198 MeV. Measured emitted alpha particles, γ rays of 169.0-, 232.5-, and 396.4 keV in coincidence with alpha particles with Eα=8380-8640 keV. Also observed alpha particles with Eα=8744 keV 10 with T<sub>1/2</sub>=0.75 s 18 ([2010An08](#), [2006An13](#)).

<sup>246</sup>Md Levels

E(level)	T <sub>1/2</sub>	Comments
0+x	0.9 s 2	%α=100; %SF=?; %ε=? T <sub>1/2</sub> : From <a href="#">2010An08</a> . Other values: 1.0 s 4 ( <a href="#">1996Ni09</a> ), 0.75 s 18 ( <a href="#">2006An13</a> ). Spontaneous fission (SF) was observed decaying with T <sub>1/2</sub> =1.0 s +10-3. Part of this decay has been assigned to electron-capture delayed spontaneous fission (ε-SF) ( <a href="#">2010An08</a> ).
0+y	4.4 s 8	%ε>77; %α<23 T <sub>1/2</sub> : From <a href="#">2010An08</a> . Activity produced by <sup>209</sup> Bi( <sup>40</sup> Ar,3n), E=198 MeV. Measured emitted alpha particles, γ rays of 252- and 279 keV (possibly E1 or E2) in coincidence with alpha particles; Eα=8178 keV 10 (%Iα<23) ( <a href="#">2010An08</a> ). Possible electron-capture delayed spontaneous fission decay (%ε-SF>10) ( <a href="#">1996Ni06,2010An08</a> ).