

$^{241}\text{Am}(n,\gamma)$ :resonances 0-320 eV **2014Fr03**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin, C. D. Nesaraja		NDS 186, 261 (2022)	31-Dec-2021

The evaluators have made use of the XUNDL dataset compiled by M. Walters and B. Singh (McMaster), May 25, 2014.

$E(n)=0-320$  eV.

Target was a solution of americium oxide ( $^{241}\text{AmO}_2$ ) in an aluminum oxide ( $\text{Al}_2\text{O}_3$  matrix with 32.2(7) mg of  $^{241}\text{Am}$  at a density of 0.000068 atoms/b 2. The main impurity was  $^{237}\text{Np}$  from the  $\alpha$  decay of  $^{241}\text{Am}$  at a density of  $\approx 0.0000024$  atoms/b.

Additional impurity was from  $^{240}\text{Pu}$  and a density of  $0.00046 \times 10^{-4}$  atoms/b. Incoming neutron fluence was measured by four silicon detectors and two MicroMegas.  $\gamma$  rays were detected using two optimized Bicon  $\text{C}_6\text{D}_6$  liquid scintillators and time-of-flight spectrometry. Measured  $E_\gamma$ ,  $E(n)$ ,  $I_\gamma$ ,  $I(n)$ , capture yields. Deduced n-resonances,  $J$ ,  $\sigma(\text{thermal})$ ,  $\Gamma_\gamma$ ,  $\Gamma_n$ , neutron strength

function. R-matrix analysis. Calculated Porter-Thomas distribution for s-wave resonances.

$J^\pi(^{241}\text{Am g.s.})=5/2^-$  gives  $J=2$  and 3 for s-wave resonances.

$S(n)(^{242}\text{Am})=5537.64$  10 (2021Wa16).

 $^{242}\text{Am}$  Levels

$E(\text{level})^\dagger$	$J^\pi$	$\Gamma_n$	Comments
S(n)-0.000306	3	$2753 \times 10^{-7}$ eV 20	$\Gamma_\gamma=0.04579$ eV.
S(n)+0.000306	3	$49.1 \times 10^{-6}$ eV 1	$\Gamma_\gamma=0.04535$ eV 3.
S(n)+0.000575	2	$1167 \times 10^{-7}$ eV 3	$\Gamma_\gamma=0.04441$ eV 5.
S(n)+0.001272	3	$2900 \times 10^{-7}$ eV 9	$\Gamma_\gamma=0.04716$ eV 3.
S(n)+0.001922	3	$1040 \times 10^{-7}$ eV 6	
S(n)+0.002365	2	$93.2 \times 10^{-6}$ eV 9	
S(n)+0.002589	3	$1367 \times 10^{-7}$ eV 9	
S(n)+0.003971	2	$2614 \times 10^{-7}$ eV 23	
S(n)+0.004966	3	$1601 \times 10^{-7}$ eV 18	
S(n)+0.005412	2	$9360 \times 10^{-7}$ eV 65	
S(n)+0.005926	2	$13.1 \times 10^{-6}$ eV 21	
S(n)+0.006116	3	$1152 \times 10^{-7}$ eV 21	
S(n)+0.006736	3	$38.5 \times 10^{-6}$ eV 17	
S(n)+0.007660	2	$65.4 \times 10^{-6}$ eV 29	
S(n)+0.008167	3	$1062 \times 10^{-7}$ eV 27	
S(n)+0.009107	2	$4891 \times 10^{-7}$ eV 68	
S(n)+0.009845	3	$3657 \times 10^{-7}$ eV 56	
S(n)+0.01007	2	$55.2 \times 10^{-6}$ eV 41	
S(n)+0.01040	3	$3001 \times 10^{-7}$ eV 49	
S(n)+0.01099	2	$5022 \times 10^{-7}$ eV 86	
S(n)+0.01149	3	$33.2 \times 10^{-6}$ eV 35	
S(n)+0.01219	3	$23.9 \times 10^{-6}$ eV 34	
S(n)+0.01288	2	$1768 \times 10^{-7}$ eV 69	
S(n)+0.01390	3	$36.0 \times 10^{-6}$ eV 42	
S(n)+0.01436	2	$1259 \times 10^{-7}$ eV 81	
S(n)+0.01468	3	$2062 \times 10^{-6}$ eV 23	
S(n)+0.01568	2	$340 \times 10^{-6}$ eV 11	
S(n)+0.01639	3	$1103 \times 10^{-6}$ eV 16	
S(n)+0.01685	2	$838 \times 10^{-6}$ eV 16	
S(n)+0.01772	3	$389 \times 10^{-6}$ eV 10	
S(n)+0.01943	2	$311 \times 10^{-6}$ eV 12	
S(n)+0.02038	3	$41 \times 10^{-6}$ eV 7	
S(n)+0.02088	3	$1153 \times 10^{-7}$ eV 72	
S(n)+0.02175	2	$147 \times 10^{-6}$ eV 12	
S(n)+0.02228	3	$578 \times 10^{-7}$ eV 75	

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$^{241}\text{Am}(n,\gamma)$ :resonances 0-320 eV **2014Fr03** (continued) $^{242}\text{Am}$  Levels (continued)

E(level) <sup>†</sup>	J <sup>π</sup>	Γ <sub>n</sub>	E(level) <sup>†</sup>	J <sup>π</sup>	Γ <sub>n</sub>	E(level) <sup>†</sup>	J <sup>π</sup>	Γ <sub>n</sub>
S(n)+0.02273	2	164×10 <sup>-6</sup> eV 12	S(n)+0.04932	3	271×10 <sup>-6</sup> eV 28	S(n)+0.08467	3	210×10 <sup>-5</sup> eV 10
S(n)+0.02306	3	383×10 <sup>-6</sup> eV 14	S(n)+0.05028	2	2896×10 <sup>-6</sup> eV 97	S(n)+0.08687	2	526×10 <sup>-6</sup> eV 85
S(n)+0.02333	2	603×10 <sup>-6</sup> eV 20	S(n)+0.05083	3	531×10 <sup>-6</sup> eV 34	S(n)+0.08750	3	376×10 <sup>-6</sup> eV 60
S(n)+0.02418	3	1092×10 <sup>-6</sup> eV 24	S(n)+0.05198	2	1923×10 <sup>-6</sup> eV 73	S(n)+0.08801	2	496×10 <sup>-5</sup> eV 22
S(n)+0.02438	3	76×10 <sup>-6</sup> eV 12	S(n)+0.05293	3	263×10 <sup>-6</sup> eV 29	S(n)+0.08919	3	364×10 <sup>-6</sup> eV 65
S(n)+0.02531	2	82×10 <sup>-6</sup> eV 15	S(n)+0.05350	2	311×10 <sup>-6</sup> eV 38	S(n)+0.08962	2	302×10 <sup>-5</sup> eV 18
S(n)+0.02563	3	1124×10 <sup>-6</sup> eV 24	S(n)+0.05449	3	162×10 <sup>-6</sup> eV 32	S(n)+0.09046	3	199×10 <sup>-6</sup> eV 49
S(n)+0.02648	2	628×10 <sup>-6</sup> eV 28	S(n)+0.05500	2	1580×10 <sup>-6</sup> eV 71	S(n)+0.09346	3	594×10 <sup>-5</sup> eV 24
S(n)+0.02669	3	204×10 <sup>-6</sup> eV 16	S(n)+0.05559	3	309×10 <sup>-6</sup> eV 37	S(n)+0.09458	3	907×10 <sup>-6</sup> eV 94
S(n)+0.02718	3	57.1×10 <sup>-6</sup> eV 93	S(n)+0.05598	2	2280×10 <sup>-6</sup> eV 99	S(n)+0.09500	2	0.50×10 <sup>-3</sup> eV 12
S(n)+0.02756	2	322×10 <sup>-6</sup> eV 23	S(n)+0.05624	3	610×10 <sup>-6</sup> eV 51	S(n)+0.09554	3	1.50×10 <sup>-3</sup> eV 13
S(n)+0.02774	3	411×10 <sup>-6</sup> eV 20	S(n)+0.05735	3	342×10 <sup>-5</sup> eV 10	S(n)+0.09589	2	3.30×10 <sup>-3</sup> eV 25
S(n)+0.02811	3	51×10 <sup>-6</sup> eV 13	S(n)+0.05908	2	727×10 <sup>-6</sup> eV 67	S(n)+0.09625	3	2.49×10 <sup>-3</sup> eV 20
S(n)+0.02835	2	750×10 <sup>-6</sup> eV 26	S(n)+0.06006	3	236×10 <sup>-6</sup> eV 44	S(n)+0.09656	2	3.13×10 <sup>-3</sup> eV 24
S(n)+0.02890	3	477×10 <sup>-6</sup> eV 18	S(n)+0.06046	2	362×10 <sup>-6</sup> eV 56	S(n)+0.09744	3	569×10 <sup>-6</sup> eV 81
S(n)+0.02950	3	640×10 <sup>-6</sup> eV 21	S(n)+0.06126	3	1472×10 <sup>-6</sup> eV 64	S(n)+0.09827	3	644×10 <sup>-6</sup> eV 74
S(n)+0.02990	2	107×10 <sup>-6</sup> eV 18	S(n)+0.06162	2	858×10 <sup>-6</sup> eV 66	S(n)+0.10014	2	1.13×10 <sup>-3</sup> eV 14
S(n)+0.03077	3	144×10 <sup>-6</sup> eV 16	S(n)+0.06244	3	180×10 <sup>-6</sup> eV 34	S(n)+0.10161	3	3.06×10 <sup>-3</sup> eV 17
S(n)+0.03099	2	518×10 <sup>-6</sup> eV 32	S(n)+0.06347	3	291×10 <sup>-6</sup> eV 36	S(n)+0.10246	2	0.75×10 <sup>-3</sup> eV 11
S(n)+0.03124	3	933×10 <sup>-6</sup> eV 28	S(n)+0.06404	2	559×10 <sup>-5</sup> eV 19	S(n)+0.10324	3	6.77×10 <sup>-3</sup> eV 28
S(n)+0.03157	3	58×10 <sup>-6</sup> eV 12	S(n)+0.06455	3	1830×10 <sup>-6</sup> eV 75	S(n)+0.10482	3	1.90×10 <sup>-3</sup> eV 15
S(n)+0.03204	2	484×10 <sup>-6</sup> eV 25	S(n)+0.06518	2	641×10 <sup>-5</sup> eV 20	S(n)+0.10618	2	9.65×10 <sup>-3</sup> eV 52
S(n)+0.03245	3	69×10 <sup>-6</sup> eV 13	S(n)+0.06575	3	1161×10 <sup>-6</sup> eV 75	S(n)+0.10647	3	3.21×10 <sup>-3</sup> eV 25
S(n)+0.03350	3	114×10 <sup>-6</sup> eV 16	S(n)+0.06631	2	1534×10 <sup>-6</sup> eV 88	S(n)+0.10765	2	2.68×10 <sup>-3</sup> eV 23
S(n)+0.03402	2	851×10 <sup>-6</sup> eV 33	S(n)+0.06688	3	2121×10 <sup>-6</sup> eV 84	S(n)+0.10983	3	2.78×10 <sup>-3</sup> eV 23
S(n)+0.03443	3	163×10 <sup>-6</sup> eV 16	S(n)+0.06854	2	767×10 <sup>-6</sup> eV 70	S(n)+0.11015	2	5.27×10 <sup>-3</sup> eV 39
S(n)+0.03493	2	846×10 <sup>-6</sup> eV 34	S(n)+0.06952	3	820×10 <sup>-6</sup> eV 75	S(n)+0.11141	3	0.61×10 <sup>-3</sup> eV 20
S(n)+0.03548	3	419×10 <sup>-6</sup> eV 21	S(n)+0.06982	2	410×10 <sup>-5</sup> eV 17	S(n)+0.11169	2	6.24×10 <sup>-3</sup> eV 38
S(n)+0.03601	2	94×10 <sup>-6</sup> eV 24	S(n)+0.07032	3	163×10 <sup>-6</sup> eV 44	S(n)+0.11282	3	831×10 <sup>-6</sup> eV 99
S(n)+0.03626	3	178×10 <sup>-6</sup> eV 20	S(n)+0.07081	3	165×10 <sup>-6</sup> eV 42	S(n)+0.11339	2	1.28×10 <sup>-3</sup> eV 16
S(n)+0.03653	2	204×10 <sup>-6</sup> eV 29	S(n)+0.07126	3	621×10 <sup>-6</sup> eV 88	S(n)+0.11400	3	1.51×10 <sup>-3</sup> eV 14
S(n)+0.03697	3	2930×10 <sup>-6</sup> eV 62	S(n)+0.07150	2	177×10 <sup>-5</sup> eV 13	S(n)+0.11505	3	1.65×10 <sup>-3</sup> eV 15
S(n)+0.03761	3	87×10 <sup>-6</sup> eV 16	S(n)+0.07188	3	966×10 <sup>-6</sup> eV 72	S(n)+0.11578	2	1.39×10 <sup>-3</sup> eV 18
S(n)+0.03836	2	3107×10 <sup>-6</sup> eV 79	S(n)+0.07238	3	372×10 <sup>-6</sup> eV 49	S(n)+0.11645	3	2.55×10 <sup>-3</sup> eV 19
S(n)+0.03876	3	79×10 <sup>-6</sup> eV 21	S(n)+0.07439	3	266×10 <sup>-6</sup> eV 50	S(n)+0.11800	2	0.64×10 <sup>-3</sup> eV 15
S(n)+0.03961	3	1222×10 <sup>-6</sup> eV 37	S(n)+0.07497	2	955×10 <sup>-6</sup> eV 87	S(n)+0.11859	3	1.08×10 <sup>-3</sup> eV 13
S(n)+0.04006	2	766×10 <sup>-6</sup> eV 42	S(n)+0.07566	3	540×10 <sup>-6</sup> eV 70	S(n)+0.11983	2	2.76×10 <sup>-3</sup> eV 27
S(n)+0.04040	3	845×10 <sup>-6</sup> eV 35	S(n)+0.07594	2	965×10 <sup>-6</sup> eV 95	S(n)+0.12017	3	2.53×10 <sup>-3</sup> eV 19
S(n)+0.04127	2	166×10 <sup>-6</sup> eV 32	S(n)+0.07661	2	245×10 <sup>-6</sup> eV 78	S(n)+0.12205	2	5.01×10 <sup>-3</sup> eV 34
S(n)+0.04177	3	433×10 <sup>-6</sup> eV 26	S(n)+0.07708	3	339×10 <sup>-6</sup> eV 50	S(n)+0.12273	3	4.01×10 <sup>-3</sup> eV 23
S(n)+0.04212	2	429×10 <sup>-6</sup> eV 37	S(n)+0.07823	2	214×10 <sup>-5</sup> eV 14	S(n)+0.12337	3	4.00×10 <sup>-3</sup> eV 22
S(n)+0.04328	3	961×10 <sup>-6</sup> eV 40	S(n)+0.07860	3	1043×10 <sup>-6</sup> eV 77	S(n)+0.12508	2	2.45×10 <sup>-3</sup> eV 23
S(n)+0.04359	2	880×10 <sup>-6</sup> eV 45	S(n)+0.07962	3	707×10 <sup>-6</sup> eV 68	S(n)+0.12589	3	1.10×10 <sup>-3</sup> eV 17
S(n)+0.04454	3	330×10 <sup>-6</sup> eV 29	S(n)+0.08012	2	0.91×10 <sup>-3</sup> eV 11	S(n)+0.12651	2	3.39×10 <sup>-3</sup> eV 25
S(n)+0.04490	3	211×10 <sup>-6</sup> eV 25	S(n)+0.08049	3	594×10 <sup>-6</sup> eV 71	S(n)+0.12743	3	0.62×10 <sup>-3</sup> eV 11
S(n)+0.04528	2	176×10 <sup>-6</sup> eV 37	S(n)+0.08122	2	524×10 <sup>-6</sup> eV 98	S(n)+0.12808	2	2.56×10 <sup>-3</sup> eV 26
S(n)+0.04604	2	955×10 <sup>-6</sup> eV 53	S(n)+0.08151	3	906×10 <sup>-6</sup> eV 86	S(n)+0.12950	3	0.56×10 <sup>-3</sup> eV 12
S(n)+0.04658	3	484×10 <sup>-6</sup> eV 32	S(n)+0.08213	2	231×10 <sup>-5</sup> eV 14	S(n)+0.13080	2	2.39×10 <sup>-3</sup> eV 26
S(n)+0.04754	2	1499×10 <sup>-6</sup> eV 58	S(n)+0.08290	3	531×10 <sup>-6</sup> eV 67	S(n)+0.13139	3	3.57×10 <sup>-3</sup> eV 24
S(n)+0.04831	2	182×10 <sup>-6</sup> eV 32	S(n)+0.08338	2	696×10 <sup>-6</sup> eV 95	S(n)+0.13219	3	0.92×10 <sup>-3</sup> eV 16
S(n)+0.04876	3	683×10 <sup>-6</sup> eV 37	S(n)+0.08401	3	1521×10 <sup>-6</sup> eV 96	S(n)+0.13278	2	1.93×10 <sup>-3</sup> eV 24

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$^{241}\text{Am}(n,\gamma)$ :resonances 0-320 eV **2014Fr03** (continued) $^{242}\text{Am}$  Levels (continued)

E(level) <sup>†</sup>	J <sup>π</sup>	Γ <sub>n</sub>	E(level) <sup>†</sup>	J <sup>π</sup>	Γ <sub>n</sub>	E(level) <sup>†</sup>	J <sup>π</sup>	Γ <sub>n</sub>
S(n)+0.13373	3	2.55×10 <sup>-3</sup> eV 20	S(n)+0.18212	3	2.32×10 <sup>-3</sup> eV 25	S(n)+0.23755	3	3.03×10 <sup>-3</sup> eV 40
S(n)+0.13493	2	9.96×10 <sup>-3</sup> eV 60	S(n)+0.18332	2	8.32×10 <sup>-3</sup> eV 69	S(n)+0.23886	2	1.51×10 <sup>-3</sup> eV 45
S(n)+0.13553	3	4.73×10 <sup>-3</sup> eV 30	S(n)+0.18450	2	1.24×10 <sup>-3</sup> eV 39	S(n)+0.23971	2	2.97×10 <sup>-3</sup> eV 72
S(n)+0.13648	2	7.56×10 <sup>-3</sup> eV 53	S(n)+0.18524	3	7.39×10 <sup>-3</sup> eV 52	S(n)+0.24078	3	2.03×10 <sup>-3</sup> eV 40
S(n)+0.13719	3	1.22×10 <sup>-3</sup> eV 17	S(n)+0.18650	2	5.50×10 <sup>-3</sup> eV 54	S(n)+0.24204	2	5.49×10 <sup>-3</sup> eV 72
S(n)+0.13769	2	2.99×10 <sup>-3</sup> eV 32	S(n)+0.18753	3	1.58×10 <sup>-3</sup> eV 22	S(n)+0.24331	3	2.92×10 <sup>-3</sup> eV 52
S(n)+0.13883	3	3.56×10 <sup>-3</sup> eV 23	S(n)+0.18872	2	1.90×10 <sup>-3</sup> eV 30	S(n)+0.24374	3	2.92×10 <sup>-3</sup> eV 50
S(n)+0.13990	3	1.16×10 <sup>-3</sup> eV 16	S(n)+0.18943	3	1.57×10 <sup>-3</sup> eV 23	S(n)+0.24467	3	1.64×10 <sup>-3</sup> eV 32
S(n)+0.14052	2	3.63×10 <sup>-3</sup> eV 34	S(n)+0.19028	2	2.49×10 <sup>-3</sup> eV 34	S(n)+0.24596	3	0.61×10 <sup>-3</sup> eV 27
S(n)+0.14110	3	1.68×10 <sup>-3</sup> eV 21	S(n)+0.19136	2	1.85×10 <sup>-3</sup> eV 30	S(n)+0.24691	2	2.08×10 <sup>-3</sup> eV 49
S(n)+0.14154	2	7.58×10 <sup>-3</sup> eV 51	S(n)+0.19226	3	2.22×10 <sup>-3</sup> eV 30	S(n)+0.24771	2	4.70×10 <sup>-3</sup> eV 88
S(n)+0.14272	2	1.08×10 <sup>-3</sup> eV 18	S(n)+0.19287	3	5.97×10 <sup>-3</sup> eV 46	S(n)+0.25029	2	1.73×10 <sup>-3</sup> eV 48
S(n)+0.14347	3	0.60×10 <sup>-3</sup> eV 16	S(n)+0.19383	2	9.10×10 <sup>-3</sup> eV 77	S(n)+0.25132	2	7.65×10 <sup>-3</sup> eV 96
S(n)+0.14487	2	2.50×10 <sup>-3</sup> eV 21	S(n)+0.19481	2	1.14×10 <sup>-3</sup> eV 28	S(n)+0.25209	2	12.4×10 <sup>-3</sup> eV 13
S(n)+0.14574	3	0.70×10 <sup>-3</sup> eV 14	S(n)+0.19753	3	6.75×10 <sup>-3</sup> eV 51	S(n)+0.25349	3	4.94×10 <sup>-3</sup> eV 68
S(n)+0.14655	2	2.98×10 <sup>-3</sup> eV 26	S(n)+0.19865	2	2.19×10 <sup>-3</sup> eV 40	S(n)+0.25416	3	3.57×10 <sup>-3</sup> eV 50
S(n)+0.14814	3	13.2×10 <sup>-3</sup> eV 7	S(n)+0.19953	2	1.60×10 <sup>-3</sup> eV 29	S(n)+0.25617	2	1.91×10 <sup>-3</sup> eV 50
S(n)+0.14923	3	3.75×10 <sup>-3</sup> eV 30	S(n)+0.20034	3	1.28×10 <sup>-3</sup> eV 23	S(n)+0.25760	3	1.30×10 <sup>-3</sup> eV 37
S(n)+0.15113	2	1.00×10 <sup>-3</sup> eV 21	S(n)+0.20114	3	3.64×10 <sup>-3</sup> eV 42	S(n)+0.25858	3	1.54×10 <sup>-3</sup> eV 37
S(n)+0.15195	2	2.56×10 <sup>-3</sup> eV 34	S(n)+0.20283	2	5.61×10 <sup>-3</sup> eV 65	S(n)+0.26043	2	16.5×10 <sup>-3</sup> eV 16
S(n)+0.15307	2	2.60×10 <sup>-3</sup> eV 31	S(n)+0.20347	3	1.20×10 <sup>-3</sup> eV 26	S(n)+0.26141	3	2.38×10 <sup>-3</sup> eV 56
S(n)+0.15347	2	1.55×10 <sup>-3</sup> eV 27	S(n)+0.20425	2	1.85×10 <sup>-3</sup> eV 33	S(n)+0.26270	2	4.61×10 <sup>-3</sup> eV 84
S(n)+0.15517	2	2.08×10 <sup>-3</sup> eV 32	S(n)+0.20498	3	2.17×10 <sup>-3</sup> eV 31	S(n)+0.26350	2	1.78×10 <sup>-3</sup> eV 50
S(n)+0.15555	3	2.44×10 <sup>-3</sup> eV 28	S(n)+0.20560	3	9.26×10 <sup>-3</sup> eV 80	S(n)+0.26458	3	1.73×10 <sup>-3</sup> eV 47
S(n)+0.15667	2	5.87×10 <sup>-3</sup> eV 43	S(n)+0.20616	2	1.80×10 <sup>-3</sup> eV 37	S(n)+0.26522	2	3.74×10 <sup>-3</sup> eV 80
S(n)+0.15848	3	1.45×10 <sup>-3</sup> eV 22	S(n)+0.20921	2	2.89×10 <sup>-3</sup> eV 42	S(n)+0.26589	3	2.58×10 <sup>-3</sup> eV 59
S(n)+0.15959	2	7.21×10 <sup>-3</sup> eV 51	S(n)+0.20995	3	7.14×10 <sup>-3</sup> eV 60	S(n)+0.26695	2	2.51×10 <sup>-3</sup> eV 52
S(n)+0.16026	2	1.64×10 <sup>-3</sup> eV 26	S(n)+0.21065	3	2.25×10 <sup>-3</sup> eV 36	S(n)+0.26809	2	3.5×10 <sup>-3</sup> eV 11
S(n)+0.16232	3	5.18×10 <sup>-3</sup> eV 34	S(n)+0.21228	2	8.77×10 <sup>-3</sup> eV 81	S(n)+0.26830	2	1.44×10 <sup>-3</sup> eV 93
S(n)+0.16345	3	1.46×10 <sup>-3</sup> eV 39	S(n)+0.21345	3	2.90×10 <sup>-3</sup> eV 41	S(n)+0.26936	3	3.21×10 <sup>-3</sup> eV 57
S(n)+0.16372	2	8.3×10 <sup>-3</sup> eV 10	S(n)+0.21401	3	2.87×10 <sup>-3</sup> eV 47	S(n)+0.27037	2	4.68×10 <sup>-3</sup> eV 83
S(n)+0.16402	3	0.85×10 <sup>-3</sup> eV 26	S(n)+0.21525	2	7.76×10 <sup>-3</sup> eV 80	S(n)+0.27100	2	9.2×10 <sup>-3</sup> eV 13
S(n)+0.16534	3	6.23×10 <sup>-3</sup> eV 45	S(n)+0.21677	2	1.10×10 <sup>-3</sup> eV 28	S(n)+0.27164	3	1.75×10 <sup>-3</sup> eV 40
S(n)+0.16574	3	1.71×10 <sup>-3</sup> eV 28	S(n)+0.21837	2	4.41×10 <sup>-3</sup> eV 50	S(n)+0.27256	3	1.98×10 <sup>-3</sup> eV 35
S(n)+0.16649	3	0.22×10 <sup>-3</sup> eV 14	S(n)+0.22001	3	4.52×10 <sup>-3</sup> eV 47	S(n)+0.27359	3	1.94×10 <sup>-3</sup> eV 47
S(n)+0.16759	2	4.60×10 <sup>-3</sup> eV 42	S(n)+0.22066	3	2.30×10 <sup>-3</sup> eV 37	S(n)+0.27540	2	21.8×10 <sup>-3</sup> eV 22
S(n)+0.16810	2	2.24×10 <sup>-3</sup> eV 30	S(n)+0.22278	2	1.49×10 <sup>-3</sup> eV 49	S(n)+0.27613	2	3.56×10 <sup>-3</sup> eV 80
S(n)+0.17036	3	0.57×10 <sup>-3</sup> eV 14	S(n)+0.22344	2	2.28×10 <sup>-3</sup> eV 42	S(n)+0.27785	3	2.17×10 <sup>-3</sup> eV 40
S(n)+0.17109	3	1.73×10 <sup>-3</sup> eV 21	S(n)+0.22460	2	9.29×10 <sup>-3</sup> eV 88	S(n)+0.27865	2	2.80×10 <sup>-3</sup> eV 69
S(n)+0.17190	3	0.79×10 <sup>-3</sup> eV 18	S(n)+0.22534	3	1.64×10 <sup>-3</sup> eV 42	S(n)+0.27982	2	2.26×10 <sup>-3</sup> eV 39
S(n)+0.17274	3	0.67×10 <sup>-3</sup> eV 17	S(n)+0.22569	3	2.59×10 <sup>-3</sup> eV 58	S(n)+0.28200	2	14.7×10 <sup>-3</sup> eV 16
S(n)+0.17449	2	4.69×10 <sup>-3</sup> eV 49	S(n)+0.22712	3	0.74×10 <sup>-3</sup> eV 26	S(n)+0.28302	2	9.0×10 <sup>-3</sup> eV 11
S(n)+0.17551	3	0.79×10 <sup>-3</sup> eV 14	S(n)+0.22812	3	5.16×10 <sup>-3</sup> eV 55	S(n)+0.28421	3	16.8×10 <sup>-3</sup> eV 15
S(n)+0.17635	3	1.03×10 <sup>-3</sup> eV 25	S(n)+0.22878	3	1.37×10 <sup>-3</sup> eV 44	S(n)+0.28556	3	2.57×10 <sup>-3</sup> eV 76
S(n)+0.17665	3	0.61×10 <sup>-3</sup> eV 26	S(n)+0.23002	3	0.58×10 <sup>-3</sup> eV 22	S(n)+0.28684	2	5.8×10 <sup>-3</sup> eV 11
S(n)+0.17739	2	1.80×10 <sup>-3</sup> eV 30	S(n)+0.23137	2	1.92×10 <sup>-3</sup> eV 40	S(n)+0.28754	2	7.2×10 <sup>-3</sup> eV 11
S(n)+0.17793	2	2.23×10 <sup>-3</sup> eV 32	S(n)+0.23238	2	1.68×10 <sup>-3</sup> eV 38	S(n)+0.28862	2	4.28×10 <sup>-3</sup> eV 72
S(n)+0.17879	3	1.87×10 <sup>-3</sup> eV 25	S(n)+0.23323	2	1.45×10 <sup>-3</sup> eV 42	S(n)+0.28986	3	5.00×10 <sup>-3</sup> eV 71
S(n)+0.17956	3	2.12×10 <sup>-3</sup> eV 23	S(n)+0.23415	3	10.1×10 <sup>-3</sup> eV 8	S(n)+0.29072	2	12.6×10 <sup>-3</sup> eV 14
S(n)+0.18058	2	4.14×10 <sup>-3</sup> eV 45	S(n)+0.23504	3	2.84×10 <sup>-3</sup> eV 40	S(n)+0.29336	3	4.18×10 <sup>-3</sup> eV 61
S(n)+0.18130	2	0.87×10 <sup>-3</sup> eV 26	S(n)+0.23630	2	2.42×10 <sup>-3</sup> eV 55	S(n)+0.29478	3	2.12×10 <sup>-3</sup> eV 45

Continued on next page (footnotes at end of table)

$^{241}\text{Am}(n,\gamma)$ :resonances 0-320 eV 2014Fr03 (continued) $^{242}\text{Am}$  Levels (continued)

<u>E(level)<sup>†</sup></u>	<u>J<sup>π</sup></u>	<u>Γ<sub>n</sub></u>	<u>E(level)<sup>†</sup></u>	<u>J<sup>π</sup></u>	<u>Γ<sub>n</sub></u>	<u>E(level)<sup>†</sup></u>	<u>J<sup>π</sup></u>	<u>Γ<sub>n</sub></u>
S(n)+0.29590	2	4.48×10 <sup>-3</sup> eV 79	S(n)+0.30536	3	2.96×10 <sup>-3</sup> eV 57	S(n)+0.31462	2	7.2×10 <sup>-3</sup> eV 13
S(n)+0.29717	3	6.46×10 <sup>-3</sup> eV 80	S(n)+0.30628	3	1.45×10 <sup>-3</sup> eV 50	S(n)+0.31534	3	4.60×10 <sup>-3</sup> eV 76
S(n)+0.29804	3	6.34×10 <sup>-3</sup> eV 81	S(n)+0.30794	2	6.7×10 <sup>-3</sup> eV 11	S(n)+0.31633	2	2.39×10 <sup>-3</sup> eV 77
S(n)+0.29953	2	10.9×10 <sup>-3</sup> eV 15	S(n)+0.30884	2	3.18×10 <sup>-3</sup> eV 80	S(n)+0.31757	3	3.40×10 <sup>-3</sup> eV 72
S(n)+0.30070	3	11.4×10 <sup>-3</sup> eV 12	S(n)+0.31009	3	7.74×10 <sup>-3</sup> eV 96	S(n)+0.31828	2	4.9×10 <sup>-3</sup> eV 14
S(n)+0.30179	2	6.8×10 <sup>-3</sup> eV 11	S(n)+0.31125	2	4.81×10 <sup>-3</sup> eV 97	S(n)+0.31913	3	3.08×10 <sup>-3</sup> eV 60
S(n)+0.30306	3	8.06×10 <sup>-3</sup> eV 80	S(n)+0.31270	3	5.24×10 <sup>-3</sup> eV 74			
S(n)+0.30423	2	3.41×10 <sup>-3</sup> eV 80	S(n)+0.31380	2	1.73×10 <sup>-3</sup> eV 75			

<sup>†</sup> Common relative uncertainty in the resonance energy is stated as 0.00065 eV (2014Fr03).