^{204}Pb(n,n′) 1994Hi01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. J. Chiara and F. G. Kondev	NDS 111,141 (2010)	1-Oct-2009

1994Hi01: 45.9-g lead sample enriched to 71.4% ^{204}Pb; E(n)=2.5, 4.6, 8.0 MeV for N-scattering differential cross-section measurements, 250 keV to 4.0 MeV in 100-keV steps for total cross-section measurements; scintillation detector used for TOF separation of N′s, FWHM=72, 108, and 228 keV at E(n)=2.5, 4.6, and 8.0 MeV, respectively; measured dσ/dΩ. Spherical optical model, coupled-channels calculations.

Other cross-section measurements: production of 9-, 67-min isomer at E(n)=13-18 MeV (1973De11); E(n)=13.5-14.6 MeV (2002BeZR); E(n)=35-1000 keV, deduced N resonance widths and E′s (2003Ca06).

^{204}Pb Levels

E(level)†	J$^\pi$†	Comments
0	0^+	
899	2^+	β_2=−0.044 coupling parameter fitted in 1994Hi01.
1274	4^+	
1351	2^+	
2620.60 *8*	3^-	E(level): From Adopted Levels. 1994Hi01 present dσ/dΩ results for the 3_1- level but do not quote E(level). β_3=0.121 coupling parameter fitted in 1994Hi01.

† From 1994Hi01, except as noted.