

$^{192}\text{Pt}(\alpha, \alpha')$ 1978Ba20

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 1871 (2012)	15-Jun-2012

All data are from 1978Ba20. $E(\alpha)=24$ MeV; platinum targets enriched to $\geq 99\%$ in ^{192}Pt ; measured $E(\text{level})$ (mag spect with position-sensitive proportional counter), $\sigma(\theta)$ ($\theta(\text{c.m.})\approx 60^\circ-130^\circ$); deduced (model-dependent) transition probabilities; determined absolute cross sections from $\sigma(\theta)$ of elastically scattered α' 's (25° to 130°) assuming Rutherford scattering at small θ ; deduced deformation parameters for g.s. band: equilibrium deformation: $\beta_2(\text{Coulomb})=-0.180$ 18, $\beta_2(\text{nuclear})=-0.152$ 15, $\beta_4(\text{Coulomb})=-0.079$ 8, $\beta_4(\text{nuclear})=-0.033$ 3 (coupled-channels analysis of data).

 ^{192}Pt Levels

E(level)	J^π †	Comments
0.0	0^+	
317	2^+	$B(E2)\uparrow=1.92$
612	2^+	
785	4^+	$B(E4)\uparrow=0.041$
1200	4^+	$B(E4)\uparrow\approx 0.1$ $B(E4)$: large value could indicate important vibrational component in this level's wave function.
1390	3^-	$B(E3)\uparrow=0.19$

† Adopted values.