

²⁰⁰Ir β⁻ decay 2013Mo20

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 192,1 (2023)	1-Aug-2023

Parent: ²⁰⁰Ir: E=0.0; J^π=(2⁻,3⁻); T_{1/2}=43 s 6; Q(β⁻)=5030 syst; %β⁻ decay=100

²⁰⁰Ir-Q(β⁻): 5030 keV 200 (syst, 2021Wa16).

²⁰⁰Ir produced in fragmentation of ²⁰⁸Pb beam with E(²⁰⁸Pb)=1 GeV/A impinging on a 2.5 g/cm² thick Be target. The beam was provided by SIS-18 synchrotron at GSI facility. Residues of interest were separated using Fragment Separator. Measured E_γ, I_γ, γγ-coin, βγ-coin, fragment-γ correlated event using RISING array comprising of 15 cluster HpGe detectors. Nine DSSSD detectors were used for particle detection.

²⁰⁰Pt Levels

The decay scheme is incomplete and, as a consequence, no β⁻ feedings and log ft values are given. Apparent β⁻ feedings that were determined in 2013Mo20 are given as comments.

E(level) [†]	J ^π [‡]	T _{1/2}	Comments
0.0	0 ⁺	12.6 h 3	T _{1/2} : From Adopted Levels.
470.1 12	2 ⁺		I _{β⁻} (apparent)=24% 14 in 2013Mo20.
867.5 16	(2) ⁺		I _{β⁻} (apparent)<8% in 2013Mo20.
1102.6 23	4 ⁺		I _{β⁻} (apparent)=13% 4 in 2013Mo20.
1181.1 15	(3) ⁺		I _{β⁻} (apparent)=8% 2 in 2013Mo20.
1624.9 18			I _{β⁻} (apparent)=29% 6 in 2013Mo20.
1690.4 24			I _{β⁻} (apparent)=9% 3 in 2013Mo20.
1730.4 14	(2 ⁺)		I _{β⁻} (apparent)=2.3% 10 in 2013Mo20.
1833.4 19			I _{β⁻} (apparent)=2.2% 9 in 2013Mo20.
1850.4 22	(2 ⁺)		I _{β⁻} (apparent)=13% 4 in 2013Mo20.

[†] From a least-squares fit to E_γ.

[‡] From Adopted Levels.

γ(²⁰⁰Pt)

I_γ normalization: The decay scheme is incomplete and, as a consequence, no normalization to absolute emission probabilities is given.

E _γ [†]	I _γ [†]	E _i (level)	J _i ^π	E _f	J _f ^π	E _γ [†]	I _γ [†]	E _i (level)	J _i ^π	E _f	J _f ^π
313.7 14	7.5 9	1181.1	(3) ⁺	867.5	(2) ⁺	757 2	12.4 16	1624.9		867.5	(2) ⁺
397.3 16	42 3	867.5	(2) ⁺	470.1	2 ⁺	822.9 17	8.6 13	1690.4		867.5	(2) ⁺
470.1 12	100 7	470.1	2 ⁺	0.0	0 ⁺	982.9 15	13.3 18	1850.4	(2 ⁺)	867.5	(2) ⁺
632.5 19	13.0 15	1102.6	4 ⁺	470.1	2 ⁺	1155.0 16	16 2	1624.9		470.1	2 ⁺
652.3 11	2.2 6	1833.4		1181.1	(3) ⁺	1260.3 7	2.3 7	1730.4	(2 ⁺)	470.1	2 ⁺
711	2.5 6	1181.1	(3) ⁺	470.1	2 ⁺						

[†] From 2013Mo20.

$^{200}\text{Ir} \beta^-$ decay 2013Mo20

Decay Scheme

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$

