

$^{187}\text{Re}(\text{d,d}') \text{ E}=12.1 \text{ MeV}$ **1967Bi10**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 110, 999 (2009)	1-Nov-2008

 ^{187}Re Levels

E(level)	J^π @	$d\sigma/d\Omega$ ($\mu\text{b/sr}$) &	Comments
0 [†] 4	5/2 ⁺	2.0×10 ⁴	8.7×10 ⁴ (90°) and 1.18×10 ⁴ (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
134.3 [†]	7/2 ⁺	1.0×10 ³	B(E2) $\uparrow$ =1.47 7 E(level): from ^{187}W β^- decay. 1.5×10 ³ (90°) and 9.7×10 ³ (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
303 [†] 4	9/2 ⁺	4.2×10 ²	B(E2) $\uparrow$ =0.52 7 5.9×10 ² (90°) and 4.4×10 ² (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
509 [†] 4	1/2 ⁺	82	B(E2) $\uparrow$ =0.12 2 E(level): doublet ($J^\pi=11/2^+$). B(E2) $\uparrow$: for the 511+589+647 composite level (1967Bi10). 87 (90°) and 102 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
589 [‡] 4	3/2 ⁺	30	68 (90°) and 34 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
648 [‡] 4	5/2 ⁺	13	18 (90°) and 18 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
743 [†] 4	13/2 ⁺	17	8 (90°) and 22 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
773 [#] 8	3/2 ⁺	3	3 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
840 [‡] 8	9/2 ⁺	70	B(E2) $\uparrow$ =0.080 12 84 (90°) and 68 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
880 8	5/2	4	6 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
1187 8		4	4 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
1200 8		15	27 (90°) and 16 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
≈1640		13	12 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).
≈1650		17	20 (150°) $d\sigma/d\Omega$ ($\mu\text{b/sr}$).

[†] 5/2⁺[402] band.

[‡] K=1/2⁺ γ -vibrational band.

[#] 3/2⁺[402] band.

@ From (d,d') angular distribution cross sections and rotational band structure.

& Differential cross sections for (d,d') at 125°. Other data at 90° and 150° are presented in the comment section.