

¹⁵⁹Tb(¹⁹F, ¹³C), ¹⁵⁴Sm(¹⁶O, ¹³C) **1986So10**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu and J. E. Purcell		NDS 198,1 (2024)	1-Aug-2024

1986So10: ¹⁵⁹Tb(¹⁹F, ¹³C) E=181 MeV at the ORNL/HHIRF; measured ¹³C+γ-coin for γ rays detected in the ORNL spin spectrometer and for ¹³C detected in Si ΔE-E charged particle telescopes at θ=20° and 30°. Deduced particle-bound ejectile yields; excited state population. Discussed reaction temperature.

2022Ro09: ¹⁵⁴Sm(¹⁶O, ¹³C_{g.s.}) E=85 MeV; measured reaction products using a ΔE-E telescope at the Bhabha Atomic Research Centre in Mumbai. Obtained differential cross sections for θ_{c.m.}≈55° to 75°. Discussed multi-nucleon transfer reaction mechanism.

¹³C Levels

<u>E(level)[†]</u>
0
3090
3680

[†] From **1986So10**.

γ(¹³C)

<u>E_γ[†]</u>	<u>E_i(level)</u>	<u>E_f</u>
(3090)	3090	0
(3680)	3680	0

[†] From level-energy difference.

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Legend

Level Scheme

-----► γ Decay (Uncertain)

