

$^{13}\text{C}(\gamma, \pi^-)$ 

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

[1982Le06](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=17, 29, 42 MeV; measured anomalously low  $\sigma(E_\pi)$  to  $^{13}\text{N}_{\text{g.s.}}$ .

[1984Du16](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=267 MeV; discussed  $\pi$  detection capabilities at NIKHEF-K.

[1984St16](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=193 MeV; measured  $\sigma(\theta)$  for  $\theta=60^\circ$  to  $130^\circ$ . Analyzed reactions to  $^{13}\text{N}^*(0,3.51)$ . Deduced form factor.

[1986Sh13](#):  $^{13}\text{C}(\gamma, \pi^-)^{13}\text{N}_{\text{g.s.}}$  E=165 MeV; measured  $\sigma(\theta)$  for  $\theta=50^\circ$  to  $150^\circ$ ; analyzed E0 and M1 contributions.

[1987Du08](#):  $^{13}\text{C}(\gamma, \pi^-)$ ; measured  $\sigma(\theta)$  in the  $\Delta$ -resonance region.

[1994Ch03](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=170, 300 MeV; analyzed polarization observables for the ground state reaction.

[1995Va13](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=184 MeV; measured  $\sigma(\theta)$  for  $\theta=45^\circ$ – $100^\circ$  and for  $^{13}\text{N}^*(0, 3.5 \text{ MeV})$ .

*Theory:*

[1973Na14](#): Calculated  $T_<$  and  $T_>$  giant resonance contributions.

[1983Ma40](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=197 MeV; calculated  $\sigma(\theta)$ .

[1984Ti02](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=200-400 MeV; calculated  $\sigma(\theta)$  in the  $\Delta$  resonance region.

[1985Sa06](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=200-400 MeV; calculated  $\sigma(\theta)$ , form factors.

[1986Dy02](#):  $^{13}\text{C}(\gamma, \pi^-)$ ; calculated  $\sigma(\theta)$  analyzed in medium effects.

[1987Or01](#):  $^{13}\text{C}(\gamma, \pi^-)$ ; calculated  $\sigma(\theta)$ .

[1990Be12](#), [1990Be45](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=160-320 MeV; calculated  $\sigma(\theta)$ .

[1990Er03](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=170-320 MeV; calculated  $\sigma(\theta)$ .

[1990Ko19](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=193,223 MeV; calculated  $\sigma(\theta)$ .

[1991Od04](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=163, 190 MeV; calculated  $\sigma(\theta)$ .

[1993Ch26](#):  $^{13}\text{C}(\gamma, \pi^-)$  E=170 MeV, calculated polarization observables.

 $^{13}\text{N}$  Levels

<u>E(level)<sup>†</sup></u>
0
$2.4 \times 10^3$
$3.51 \times 10^3$
$6.4 \times 10^3$

<sup>†</sup> See ([1984Du16](#)).