

$N(1900) P_{13}$

$$I(J^P) = \frac{1}{2}(\frac{3}{2}^+) \text{ Status: } **$$

OMITTED FROM SUMMARY TABLE

$N(1900)$ BREIT-WIGNER MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
≈ 1900 OUR ESTIMATE			
1879±17	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
1951±53	PENNER	02C	DPWA Multichannel

$N(1900)$ BREIT-WIGNER WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
498±78	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
622±42	PENNER	02C	DPWA Multichannel

$N(1900)$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
Γ_1 $N\pi$	
Γ_2 $N\pi\pi$	
Γ_3 $N\rho, S=1/2, P\text{-wave}$	
Γ_4 $N\eta$	(14±5) %
Γ_5 $N\omega$	(39±9) %
Γ_6 ΛK	
Γ_7 ΣK	

$N(1900)$ BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{\text{total}}$	Γ_1/Γ		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.26±0.06	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
0.16±0.02	PENNER	02C	DPWA Multichannel

$\Gamma(N\eta)/\Gamma_{\text{total}}$	Γ_4/Γ		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.14±0.05	PENNER	02C	DPWA Multichannel

$\Gamma(N\omega)/\Gamma_{\text{total}}$	Γ_5/Γ		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.39±0.09	PENNER	02C	DPWA Multichannel

$(\Gamma_i \Gamma_f)^{1/2} / \Gamma_{\text{total}}$ in $N\pi \rightarrow N(1900) \rightarrow N\rho, S=1/2, P\text{-wave}$	$(\Gamma_1 \Gamma_3)^{1/2} / \Gamma$
VALUE	DOCUMENT ID TECN COMMENT
-0.34 ± 0.03	MANLEY 92 IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$

$\Gamma(\Lambda K) / \Gamma_{\text{total}}$	Γ_6 / Γ
VALUE	DOCUMENT ID TECN COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •	
0.001 ± 0.001	PENNER 02C DPWA Multichannel

$\Gamma(\Sigma K) / \Gamma_{\text{total}}$	Γ_7 / Γ
VALUE	DOCUMENT ID TECN COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •	
0.01 ± 0.01	PENNER 02C DPWA Multichannel

N(1900) PHOTON DECAY AMPLITUDES

N(1900) → pγ, helicity-1/2 amplitude A_{1/2}

VALUE (GeV ^{-1/2})	DOCUMENT ID TECN COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •	
-0.017	PENNER 02D DPWA Multichannel

N(1900) → pγ, helicity-3/2 amplitude A_{3/2}

VALUE (GeV ^{-1/2})	DOCUMENT ID TECN COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •	
0.031	PENNER 02D DPWA Multichannel

N(1900) → nγ, helicity-1/2 amplitude A_{1/2}

VALUE (GeV ^{-1/2})	DOCUMENT ID TECN COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •	
-0.016	PENNER 02D DPWA Multichannel

N(1900) → nγ, helicity-3/2 amplitude A_{3/2}

VALUE (GeV ^{-1/2})	DOCUMENT ID TECN COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •	
-0.002	PENNER 02D DPWA Multichannel

N(1900) REFERENCES

PENNER 02C PR C66 055211	G. Penner, U. Mosel	(GIES)
PENNER 02D PR C66 055212	G. Penner, U. Mosel	(GIES)
MANLEY 92 PR D45 4002	D.M. Manley, E.M. Saleski	(KENT)
Also 84 PR D30 904	D.M. Manley <i>et al.</i>	(VPI)