

$\Delta(2350) 5/2^-$

$$I(J^P) = \frac{3}{2}(\frac{5}{2}^-) \text{ Status: } *$$

OMITTED FROM SUMMARY TABLE

The latest GWU analysis (ARNDT 06) finds no evidence for this resonance.

 $\Delta(2350)$ BREIT-WIGNER MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
≈ 2350 OUR ESTIMATE			
2400 \pm 125	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
2305 \pm 26	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
2459 \pm 100	VRANA	00	DPWA Multichannel
2171 \pm 18	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$

 $\Delta(2350)$ BREIT-WIGNER WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
400 \pm 150	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
300 \pm 70	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
480 \pm 360	VRANA	00	DPWA Multichannel
264 \pm 51	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$

 $\Delta(2350)$ POLE POSITION**REAL PART**

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2400 \pm 125	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
2427	VRANA	00	DPWA Multichannel

 $-2 \times$ IMAGINARY PART

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
400 \pm 150	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
458	VRANA	00	DPWA Multichannel

 $\Delta(2350)$ ELASTIC POLE RESIDUE**MODULUS $|r|$**

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
15 \pm 8	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

PHASE θ

<u>VALUE ($^\circ$)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
-70 ± 70	CUTKOSKY 80	IPWA	$\pi N \rightarrow \pi N$

$\Delta(2350)$ DECAY MODES

Mode
$\Gamma_1 \quad N\pi$
$\Gamma_2 \quad \Sigma K$

$\Delta(2350)$ BRANCHING RATIOS

<u>$\Gamma(N\pi)/\Gamma_{\text{total}}$</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	<u>Γ_1/Γ</u>
20 ± 10	CUTKOSKY 80	IPWA	$\pi N \rightarrow \pi N$	
4 ± 2	HOEHLER 79	IPWA	$\pi N \rightarrow \pi N$	
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
7 ± 14	VRANA 00	DPWA	Multichannel	
2.0 ± 0.3	MANLEY 92	IPWA	$\pi N \rightarrow \pi N \ \& \ N\pi\pi$	

<u>$(\Gamma_i \Gamma_f)^{1/2}/\Gamma_{\text{total}}$ in $N\pi \rightarrow \Delta(2350) \rightarrow \Sigma K$</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	<u>$(\Gamma_1 \Gamma_2)^{1/2}/\Gamma$</u>
< 0.015	CANDLIN 84	DPWA	$\pi^+ p \rightarrow \Sigma^+ K^+$	

$\Delta(2350)$ REFERENCES

ARNDT 06	PR C74 045205	R.A. Arndt <i>et al.</i>	(GWU)
VRANA 00	PRPL 328 181	T.P. Vrana, S.A. Dytman,, T.-S.H. Lee	(PITT+)
MANLEY 92	PR D45 4002	D.M. Manley, E.M. Saleski	(KSA) IJP
Also	PR D30 904	D.M. Manley <i>et al.</i>	(VPI)
CANDLIN 84	NP B238 477	D.J. Candlin <i>et al.</i>	(EDIN, RAL, LOWC)
CUTKOSKY 80	Toronto Conf. 19	R.E. Cutkosky <i>et al.</i>	(CMU, LBL) IJP
Also	PR D20 2839	R.E. Cutkosky <i>et al.</i>	(CMU, LBL)
HOEHLER 79	PDAT 12-1	G. Hohler <i>et al.</i>	(KARLT) IJP
Also	Toronto Conf. 3	R. Koch	(KARLT) IJP