

$\Delta(1750) P_{31}$

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

OMITTED FROM SUMMARY TABLE

$\Delta(1750)$ BREIT-WIGNER MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
≈ 1750 OUR ESTIMATE			
1744 \pm 36	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
1715.2 \pm 21.0	¹ CHEW	80	BPWA $\pi^+ p \rightarrow \pi^+ p$
1778.4 \pm 9.0	¹ CHEW	80	BPWA $\pi^+ p \rightarrow \pi^+ p$

$\Delta(1750)$ BREIT-WIGNER WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
300 \pm 120	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
93.3 \pm 55.0	¹ CHEW	80	BPWA $\pi^+ p \rightarrow \pi^+ p$
23.0 \pm 29.0	¹ CHEW	80	BPWA $\pi^+ p \rightarrow \pi^+ p$

$\Delta(1750)$ DECAY MODES

Mode
Γ_1 $N\pi$
Γ_2 $N\pi\pi$
Γ_3 $N(1440)\pi$

$\Gamma(N\pi)/\Gamma_{\text{total}}$	Γ_1/Γ		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.08 \pm 0.03	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
0.18	¹ CHEW	80	BPWA $\pi^+ p \rightarrow \pi^+ p$
0.20	¹ CHEW	80	BPWA $\pi^+ p \rightarrow \pi^+ p$

$(\Gamma_i \Gamma_f)^{1/2}/\Gamma_{\text{total}}$ in $N\pi \rightarrow \Delta(1700) \rightarrow N(1440)\pi$	$(\Gamma_1 \Gamma_3)^{1/2}/\Gamma$		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
+0.15 \pm 0.03	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$

$\Delta(1750)$ FOOTNOTES

¹ CHEW 80 reports four resonances in the P_{31} wave — see also the $\Delta(1910)$. Problems with this analysis are discussed in section 2.1.11 of HOEHLER 83.

$\Delta(1750)$ REFERENCES

MANLEY	92	PR D45 4002	+Saleski	(KENT)
Also	84	PR D30 904	Manley, Arndt, Goradia, Teplitz	(VPI)
HOEHLER	83	Landolt-Boernstein 1/9B2		(KARLT)
CHEW	80	Toronto Conf. 123		(LBL)
