

$\Delta(2400) G_{39}$ $I(J^P) = \frac{3}{2}(\frac{9}{2}^-)$ Status: **

OMITTED FROM SUMMARY TABLE

 $\Delta(2400)$ BREIT-WIGNER MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
≈ 2400 OUR ESTIMATE			
2300 \pm 100	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
2468 \pm 50	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$
2200 \pm 100	HENDRY	78	MPWA $\pi N \rightarrow \pi N$

 $\Delta(2400)$ BREIT-WIGNER WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
330 \pm 100	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
480 \pm 100	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$
450 \pm 200	HENDRY	78	MPWA $\pi N \rightarrow \pi N$

 $\Delta(2400)$ POLE POSITION**REAL PART**

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2260 \pm 60	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

-2xIMAGINARY PART

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
320 \pm 160	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

 $\Delta(2400)$ ELASTIC POLE RESIDUE**MODULUS $|r|$**

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
8 \pm 4	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

PHASE θ

<u>VALUE ($^\circ$)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
-25 \pm 15	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

 $\Delta(2400)$ DECAY MODES

Mode
Γ_1 $N\pi$
Γ_2 ΣK

$\Delta(2400)$ BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{\text{total}}$					Γ_1/Γ
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>		
0.05 ± 0.02	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$	
0.06 ± 0.03	HOEHLER	79	IPWA	$\pi N \rightarrow \pi N$	
0.10 ± 0.03	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$	

$(\Gamma_i \Gamma_f)^{1/2}/\Gamma_{\text{total}}$ in $N\pi \rightarrow \Delta(2400) \rightarrow \Sigma K$					$(\Gamma_1 \Gamma_2)^{1/2}/\Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>		
< 0.015	CANDLIN	84	DPWA	$\pi^+ p \rightarrow \Sigma^+ K^+$	

$\Delta(2400)$ REFERENCES

CANDLIN	84	NP B238 477	+Lowe, Peach, Scotland+	(EDIN, RAL, LOWC)
CUTKOSKY	80	Toronto Conf. 19	+Forsyth, Babcock, Kelly, Hendrick	(CMU, LBL) IJP
Also	79	PR D20 2839	Cutkosky, Forsyth, Hendrick, Kelly	(CMU, LBL)
HOEHLER	79	PDAT 12-1	+Kaiser, Koch, Pietarinen	(KARLT) IJP
Also	80	Toronto Conf. 3	Koch	(KARLT) IJP
HENDRY	78	PRL 41 222		(IND, LBL) IJP
Also	81	ANP 136 1	Hendry	(IND)