$\Delta(2400)$ G_{39}

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

OMITTED FROM SUMMARY TABLE

$\Delta(2400)$ BREIT-WIGNER MASS

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

$\Delta(2400)$ BREIT-WIGNER WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
330 ± 100	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$
480 ± 100	HOEHLER	79	IPWA	$\pi N \rightarrow \pi N$
450 ± 200	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$

$\Delta(2400)$ POLE POSITION

REAL PART

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2260 ± 60	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$

$-2\times$IMAGINARY PART

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
320 ± 160	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$

$\Delta(2400)$ ELASTIC POLE RESIDUE

MODULUS $|r|$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
8 ± 4	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$

PHASE θ

VALUE (°)	*DOCUMENT ID*		*TECN*	*COMMENT*
−25 ± 15	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$

$\Delta(2400)$ DECAY MODES

	Mode
Γ_1	$N\pi$
Γ_2	ΣK

Δ(2400) BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{total}$ — Γ_1/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
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	$\pi N \rightarrow \pi N$

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\pi \rightarrow \Delta(2400) \rightarrow \Sigma K$ — $(\Gamma_1\Gamma_2)^{1/2}/\Gamma$

VALUE	DOCUMENT ID		TECN	COMMENT
<0.015	CANDLIN	84	DPWA	$\pi^+ p \rightarrow \Sigma^+ K^+$

Δ(2400) REFERENCES

CANDLIN	84	NP B238 477	D.J. Candlin *et al.*	(EDIN, RAL, LOWC)
CUTKOSKY	80	Toronto Conf. 19	R.E. Cutkosky *et al.*	(CMU, LBL) IJP
Also	79	PR D20 2839	R.E. Cutkosky *et al.*	(CMU, LBL)
HOEHLER	79	PDAT 12-1	G. Hohler *et al.*	(KARLT) IJP
Also	80	Toronto Conf. 3	R. Koch	(KARLT) IJP
HENDRY	78	PRL 41 222	A.W. Hendry	(IND, LBL) IJP
Also	81	ANP 136 1	A.W. Hendry	(IND)