

Δ(2400) G₃₉

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

OMITTED FROM SUMMARY TABLE

Δ(2400) BREIT-WIGNER MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
≈ 2400 OUR ESTIMATE			
2300 ± 100	CUTKOSKY	80	IPWA π N → π N
2468 ± 50	HOEHLER	79	IPWA π N → π N
2200 ± 100	HENDRY	78	MPWA π N → π N

Δ(2400) BREIT-WIGNER WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
330 ± 100	CUTKOSKY	80	IPWA π N → π N
480 ± 100	HOEHLER	79	IPWA π N → π N
450 ± 200	HENDRY	78	MPWA π N → π N

Δ(2400) POLE POSITION

REAL PART

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2260 ± 60	CUTKOSKY	80	IPWA π N → π N

− 2×IMAGINARY PART

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
320 ± 160	CUTKOSKY	80	IPWA π N → π N

Δ(2400) ELASTIC POLE RESIDUE

MODULUS |r|

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
8 ± 4	CUTKOSKY	80	IPWA π N → π N

PHASE θ

<u>VALUE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
− 25 ± 15	CUTKOSKY	80	IPWA π N → π N

Δ(2400) DECAY MODES

Mode
Γ ₁ Nπ
Γ ₂ Σ K

$\Delta(2400)$ BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{\text{total}}$	<i>DOCUMENT ID</i>	<i>TECN</i>	<i>COMMENT</i>	Γ_1/Γ
<i>VALUE</i>	<i>DOCUMENT ID</i>	<i>TECN</i>	<i>COMMENT</i>	
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 $N\pi \rightarrow \Delta(2400) \rightarrow \Sigma K$	<i>DOCUMENT ID</i>	<i>TECN</i>	<i>COMMENT</i>	$(\Gamma_1 \Gamma_2)^{1/2}/\Gamma$
<i>VALUE</i>	<i>DOCUMENT ID</i>	<i>TECN</i>	<i>COMMENT</i>	
<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)