

Δ(2200) G₃₇

$$I(J^P) = \frac{3}{2}(\frac{7}{2}^-) \text{ Status: } *$$

OMITTED FROM SUMMARY TABLE

The various analyses are not in good agreement.

Δ(2200) BREIT-WIGNER MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
≈ 2200 OUR ESTIMATE			
2200 ± 80	CUTKOSKY	80	IPWA π N → π N
2215 ± 60	HOEHLER	79	IPWA π N → π N
2280 ± 80	HENDRY	78	MPWA π N → π N
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
2280 ± 40	CANDLIN	84	DPWA π ⁺ p → Σ ⁺ K ⁺

Δ(2200) BREIT-WIGNER WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
450 ± 100	CUTKOSKY	80	IPWA π N → π N
400 ± 100	HOEHLER	79	IPWA π N → π N
400 ± 150	HENDRY	78	MPWA π N → π N
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
400 ± 50	CANDLIN	84	DPWA π ⁺ p → Σ ⁺ K ⁺

Δ(2200) POLE POSITION

REAL PART

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2100 ± 50	CUTKOSKY	80	IPWA π N → π N

− 2×IMAGINARY PART

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
340 ± 80	CUTKOSKY	80	IPWA π N → π N

Δ(2200) ELASTIC POLE RESIDUE

MODULUS |r|

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
8 ± 3	CUTKOSKY	80	IPWA π N → π N

PHASE θ

<u>VALUE (°)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
− 70 ± 40	CUTKOSKY	80	IPWA π N → π N

$\Delta(2200)$ DECAY MODES

Mode
Γ_1 $N\pi$
Γ_2 ΣK

$\Delta(2200)$ BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	COMMENT	Γ_1/Γ
0.06 ± 0.02	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$	
0.05 ± 0.02	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$	
0.09 ± 0.02	HENDRY	78	MPWA $\pi N \rightarrow \pi N$	

$(\Gamma_i \Gamma_f)^{1/2}/\Gamma_{\text{total}}$ in $N\pi \rightarrow \Delta(2200) \rightarrow \Sigma K$	DOCUMENT ID	TECN	COMMENT	$(\Gamma_1 \Gamma_2)^{1/2}/\Gamma$
-0.014 ± 0.005	CANDLIN	84	DPWA $\pi^+ p \rightarrow \Sigma^+ K^+$	

$\Delta(2200)$ 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) IJP
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)