

$\Delta(2200) G_{37}$ 

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

OMITTED FROM SUMMARY TABLE

The various analyses are not in good agreement.

 **$\Delta(2200)$  BREIT-WIGNER MASS**

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b><math>\approx 2200</math> OUR ESTIMATE</b>			
2200 $\pm$ 80	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
2215 $\pm$ 60	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$
2280 $\pm$ 80	HENDRY	78	MPWA $\pi N \rightarrow \pi N$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
2280 $\pm$ 40	CANDLIN	84	DPWA $\pi^+ p \rightarrow \Sigma^+ K^+$

 **$\Delta(2200)$  BREIT-WIGNER WIDTH**

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

 **$\Delta(2200)$  POLE POSITION****REAL PART**

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2100 $\pm$ 50	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

**- 2  $\times$  IMAGINARY PART**

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
340 $\pm$ 80	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

 **$\Delta(2200)$  ELASTIC POLE RESIDUE****MODULUS  $|r|$** 

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
8 $\pm$ 3	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

**PHASE  $\theta$** 

<u>VALUE (<math>^\circ</math>)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
-70 $\pm$ 40	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

## $\Delta(2200)$ DECAY MODES

Mode
$\Gamma_1$ $N\pi$
$\Gamma_2$ $\Sigma K$

## $\Delta(2200)$ BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	COMMENT	$\Gamma_1/\Gamma$
$0.06 \pm 0.02$	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$	
$0.05 \pm 0.02$	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$	
$0.09 \pm 0.02$	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	$(\Gamma_1 \Gamma_2)^{1/2}/\Gamma$
$-0.014 \pm 0.005$	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)