

$\Delta(2350) D_{35}$ 

$I(J^P) = \frac{3}{2}(\frac{5}{2}^-)$  Status: \*

OMITTED FROM SUMMARY TABLE

 **$\Delta(2350)$  BREIT-WIGNER MASS**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b><math>\approx 2350</math> OUR ESTIMATE</b>			
$2171 \pm 18$	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$
$2400 \pm 125$	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
$2305 \pm 26$	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$

 **$\Delta(2350)$  BREIT-WIGNER WIDTH**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
$264 \pm 51$	MANLEY	92	IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$
$400 \pm 150$	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$
$300 \pm 70$	HOEHLER	79	IPWA $\pi N \rightarrow \pi N$

 **$\Delta(2350)$  POLE POSITION****REAL PART**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
$2400 \pm 125$	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

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

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
$400 \pm 150$	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

 **$\Delta(2350)$  ELASTIC POLE RESIDUE****MODULUS  $|r|$** 

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
$15 \pm 8$	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

**PHASE  $\theta$** 

VALUE ( $^\circ$ )	DOCUMENT ID	TECN	COMMENT
$-70 \pm 70$	CUTKOSKY	80	IPWA $\pi N \rightarrow \pi N$

 **$\Delta(2350)$  DECAY MODES**

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

### $\Delta(2350)$ BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{\text{total}}$					$\Gamma_1/\Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>		
$0.020 \pm 0.003$	MANLEY	92	IPWA	$\pi N \rightarrow \pi N \text{ \& } N\pi\pi$	
$0.20 \pm 0.10$	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$	
$0.04 \pm 0.02$	HOEHLER	79	IPWA	$\pi N \rightarrow \pi N$	

$(\Gamma_i \Gamma_f)^{1/2}/\Gamma_{\text{total}}$ in $N\pi \rightarrow \Delta(2350) \rightarrow \Sigma K$					$(\Gamma_1 \Gamma_2)^{1/2}/\Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>		
$< 0.015$	CANDLIN	84	DPWA	$\pi^+ p \rightarrow \Sigma^+ K^+$	

### $\Delta(2350)$ REFERENCES

MANLEY	92	PR D45 4002	+Saleski	(KENT) IJP
Also	84	PR D30 904	Manley, Arndt, Goradia, Teplitz	(VPI)
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