$\Delta(2350)$ 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
≈ 2350 OUR ESTIMATE				
2171 ± 18	MANLEY	92	IPWA	$\pi N \to \pi N$ & $N\pi\pi$
2400 ± 125	CUTKOSKY	80	IPWA	$\pi N \to \pi N$
2305 ± 26	HOEHLER	79	IPWA	$\pi N \to \pi N$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2459 ± 100	VRANA	00	DPWA	Multichannel

$\Delta(2350)$ BREIT-WIGNER WIDTH

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
264 ± 51	MANLEY	92	IPWA	$\pi N \to \pi N$ & $N\pi\pi$
400 ± 150	CUTKOSKY	80	IPWA	$\pi N \to \pi N$
300 ± 70	HOEHLER	79	IPWA	$\pi N \to \pi N$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
480 ± 360	VRANA	00	DPWA	Multichannel

$\Delta(2350)$ POLE POSITION

REAL PART

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
2400 ± 125	CUTKOSKY	80	IPWA	$\pi N \to \pi N$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2427	VRANA	00	DPWA	Multichannel

−2×IMAGINARY PART

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
400 ± 150	CUTKOSKY	80	IPWA	$\pi N \to \pi N$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
458	VRANA	00	DPWA	Multichannel

$\Delta(2350)$ ELASTIC POLE RESIDUE

MODULUS $|r|$

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

PHASE θ

VALUE (°)	DOCUMENT ID		TECN	COMMENT
−70 ± 70	CUTKOSKY	80	IPWA	$\pi N \to \pi N$

$\Delta(2350)$ DECAY MODES

	Mode
Γ_1	$N\pi$
Γ_2	ΣK

$\Delta(2350)$ BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{total}$ — Γ_1/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.020 ± 0.003	MANLEY	92	IPWA	$\pi N \to \pi N$ & $N\pi\pi$
0.20 ± 0.10	CUTKOSKY	80	IPWA	$\pi N \to \pi N$
0.04 ± 0.02	HOEHLER	79	IPWA	$\pi N \to \pi N$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.07 ± 0.14	VRANA	00	DPWA	Multichannel

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\pi \to \Delta(2350) \to \Sigma K$ — $(\Gamma_1\Gamma_2)^{1/2}/\Gamma$

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

$\Delta(2350)$ REFERENCES

VRANA	00	PRPL 328 181	T.P. Vrana, S.A. Dytman,, T.-S.H. Lee	(PITT+)
MANLEY	92	PR D45 4002	D.M. Manley, E.M. Saleski	(KENT) IJP
Also	84	PR D30 904	D.M. Manley et al.	(VPI)
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