

$\Delta(2350) D_{35}$

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

OMITTED FROM SUMMARY TABLE

The latest GWU analysis (ARNDT 06) finds no evidence for this resonance.

$\Delta(2350)$ BREIT-WIGNER MASS

| <u>VALUE (MeV)</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> |
|---|--------------------|-------------|--|
| ≈ 2350 OUR ESTIMATE | | | |
| 2171 ± 18 | MANLEY | 92 | IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$ |
| 2400 ± 125 | CUTKOSKY | 80 | IPWA $\pi N \rightarrow \pi N$ |
| 2305 ± 26 | HOEHLER | 79 | IPWA $\pi N \rightarrow \pi N$ |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | |
| 2459 ± 100 | VRANA | 00 | DPWA Multichannel |

$\Delta(2350)$ BREIT-WIGNER WIDTH

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

$\Delta(2350)$ POLE POSITION

REAL PART

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

− 2×IMAGINARY PART

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

$\Delta(2350)$ ELASTIC POLE RESIDUE

MODULUS $|r|$

| <u>VALUE (MeV)</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> |
|--------------------|--------------------|-------------|--------------------------------|
| 15 ± 8 | CUTKOSKY | 80 | IPWA $\pi N \rightarrow \pi N$ |

PHASE θ

| <u>VALUE (°)</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> |
|------------------|--------------------|-------------|--------------------------------|
| − 70 ± 70 | CUTKOSKY | 80 | IPWA $\pi N \rightarrow \pi N$ |

$\Delta(2350)$ DECAY MODES

| Mode |
|-----------------------|
| Γ_1 $N\pi$ |
| Γ_2 ΣK |

$\Delta(2350)$ BRANCHING RATIOS

| $\Gamma(N\pi)/\Gamma_{\text{total}}$ | DOCUMENT ID | TECN | COMMENT | Γ_1/Γ |
|---|-------------|------|--|-------------------|
| 0.020 ± 0.003 | MANLEY | 92 | IPWA $\pi N \rightarrow \pi N$ & $N\pi\pi$ | |
| 0.20 ± 0.10 | CUTKOSKY | 80 | IPWA $\pi N \rightarrow \pi N$ | |
| 0.04 ± 0.02 | HOEHLER | 79 | IPWA $\pi N \rightarrow \pi N$ | |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | |
| 0.07 ± 0.14 | VRANA | 00 | DPWA Multichannel | |

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

$\Delta(2350)$ REFERENCES

| | | | | |
|----------|----|------------------|---------------------------------------|-------------------|
| ARNDT | 06 | PR C74 045205 | R.A. Arndt <i>et al.</i> | (GWU) |
| 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 | | PR D30 904 | D.M. Manley <i>et al.</i> | (VPI) |
| CANDLIN | 84 | NP B238 477 | D.J. Candlin <i>et al.</i> | (EDIN, RAL, LOWC) |
| CUTKOSKY | 80 | Toronto Conf. 19 | R.E. Cutkosky <i>et al.</i> | (CMU, LBL) IJP |
| Also | | PR D20 2839 | R.E. Cutkosky <i>et al.</i> | (CMU, LBL) |
| HOEHLER | 79 | PDAT 12-1 | G. Hohler <i>et al.</i> | (KARLT) IJP |
| Also | | Toronto Conf. 3 | R. Koch | (KARLT) IJP |