$\rho_5(2350)$

$I^G(J^{PC}) = 1^+(5^{--})$

OMITTED FROM SUMMARY TABLE

This entry was previously called $U_1(2400)$. See also the $\overline{N}N(1100–3600)$ and $X(1900–3600)$ entries. See also $\rho(2150)$, $f_2(2150)$, $\rho_3(2250)$, $f_4(2300)$.

$\rho_5(2350)$ MASS

$\pi^- p \rightarrow \omega\pi^0 n$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2330±35	ALDE	95	GAM2	38 $\pi^- p \rightarrow \omega\pi^0 n$

$\overline{p}p \rightarrow \pi\pi$ or $\overline{K}K$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •					
∼ 2303	HASAN	94	RVUE		$\overline{p}p \rightarrow \pi\pi$
∼ 2300	[1] MARTIN	80B	RVUE		
∼ 2250	[1] MARTIN	80C	RVUE		
∼ 2500	[2] CARTER	78B	CNTR	0	0.7–2.4 $\overline{p}p \rightarrow K^- K^+$
∼ 2480	[3] CARTER	77	CNTR	0	0.7–2.4 $\overline{p}p \rightarrow \pi\pi$

S-CHANNEL $\overline{N}N$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •					
∼ 2380	[4] CUTTS	78B	CNTR		0.97–3 $\overline{p}p \rightarrow \overline{N}N$
2345±15	[4,5] COUPLAND	77	CNTR	0	0.7–2.4 $\overline{p}p \rightarrow \overline{p}p$
2359± 2	[4,6] ALSPECTOR	73	CNTR		$\overline{p}p$ S channel
2350±10	[7] ABRAMS	70	CNTR		S channel $\overline{N}N$
2360±25	[8] OH	70B	HDBC	−0	$\overline{p}(pn)$, $K^*K2\pi$

[1] $I(J^P) = 1(5^-)$ from simultaneous analysis of $p\overline{p} \rightarrow \pi^-\pi^+$ and $\pi^0\pi^0$.
[2] $I = 0(1)$; $J^P = 5^-$ from Barrelet-zero analysis.
[3] $I(J^P) = 1(5^-)$ from amplitude analysis.
[4] Isospins 0 and 1 not separated.
[5] From a fit to the total elastic cross section.
[6] Referred to as U or U region by ALSPECTOR 73.
[7] For $I = 1$ $\overline{N}N$.
[8] No evidence for this bump seen in the $\overline{p}p$ data of CHAPMAN 71B. Narrow state not confirmed by OH 73 with more data.

$\rho_5(2350)$ WIDTH

$\pi^- p \rightarrow \omega\pi^0 n$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
400±100	ALDE	95	GAM2	38 $\pi^- p \rightarrow \omega\pi^0 n$

$\overline{p}p \rightarrow \pi\pi$ or $\overline{K}K$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •					
~ 169	HASAN	94	RVUE		$\overline{p}p \rightarrow \pi\pi$
~ 250	[9] MARTIN	80B	RVUE		
~ 300	[9] MARTIN	80C	RVUE		
~ 150	[10] CARTER	78B	CNTR	0	0.7–2.4 $\overline{p}p \rightarrow K^- K^+$
~ 210	[11] CARTER	77	CNTR	0	0.7–2.4 $\overline{p}p \rightarrow \pi\pi$

S-CHANNEL $\overline{N}N$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •					
135^{+150}_{-65}	[12,13] COUPLAND	77	CNTR	0	0.7–2.4 $\overline{p}p \rightarrow \overline{p}p$
165^{+18}_{-8}	[13] ALSPECTOR	73	CNTR		$\overline{p}p$ S channel
< 60	[14] OH	70B	HDBC	-0	$\overline{p}(pn)$, $K^* K 2\pi$
~ 140	ABRAMS	67C	CNTR		S channel $\overline{p}N$

[9] $I(J^P) = 1(5^-)$ from simultaneous analysis of $p\overline{p} \rightarrow \pi^-\pi^+$ and $\pi^0\pi^0$.
[10] $I = 0(1)$; $J^P = 5^-$ from Barrelet-zero analysis.
[11] $I(J^P) = 1(5^-)$ from amplitude analysis.
[12] From a fit to the total elastic cross section.
[13] Isospins 0 and 1 not separated.
[14] No evidence for this bump seen in the $\overline{p}p$ data of CHAPMAN 71B. Narrow state not confirmed by OH 73 with more data.

$\rho_5(2350)$ REFERENCES

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