$\Delta(\sim 3000$ Region) Partial-Wave Analyses

NODE=B127

OMITTED FROM SUMMARY TABLE

NODE=B127

We list here miscellaneous high-mass candidates for isospin-3/2 resonances found in partial-wave analyses.

Our 1982 edition also had a $\Delta(2850)$ and a $\Delta(3230)$. The evidence for them was deduced from total cross-section and 180° elastic cross-section measurements. The $\Delta(2850)$ has been resolved into the $\Delta(2750)$ $I_{3,13}$ and $\Delta(2950)$ $K_{3,15}$. The $\Delta(3230)$ is perhaps related to the $K_{3,13}$ of HENDRY 78 and to the $L_{3,17}$ of KOCH 80.

$\Delta(\sim 3000)$ BREIT-WIGNER MASS

NODE=B127M

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*	
3300	[1] KOCH	80	IPWA	$\pi N \rightarrow \pi N$ $L_{3,17}$ wave	NODE=B127M
3500	[1] KOCH	80	IPWA	$\pi N \rightarrow \pi N$ $M_{3,19}$ wave	OCCUR=2
2850±150	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $I_{3,11}$ wave	
3200±200	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $K_{3,13}$ wave	OCCUR=2
3300±200	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $L_{3,17}$ wave	OCCUR=3
3700±200	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $M_{3,19}$ wave	OCCUR=4
4100±300	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $N_{3,21}$ wave	OCCUR=5

$\Delta(\sim 3000)$ BREIT-WIGNER WIDTH

NODE=B127W

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*	
700±200	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $I_{3,11}$ wave	NODE=B127W
1000±300	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $K_{3,13}$ wave	OCCUR=2
1100±300	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $L_{3,17}$ wave	OCCUR=3
1300±400	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $M_{3,19}$ wave	OCCUR=4
1600±500	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $N_{3,21}$ wave	OCCUR=5

$\Delta(\sim 3000)$ DECAY MODES

NODE=B127215;NODE=B127

	Mode	Fraction (Γ_i/Γ)	
Γ_1	$N\pi$	1–8%	DESIG=1

$\Delta(\sim 3000)$ BRANCHING RATIOS

NODE=B127220

$\Gamma(N\pi)/\Gamma_{total}$ Γ_1/Γ

NODE=B127R1

VALUE (%)	*DOCUMENT ID*		*TECN*	*COMMENT*	
1–8% OUR ESTIMATE					NODE=B127R1
					→ UNCHECKED ←
6±2	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $I_{3,11}$ wave	
5±2	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $K_{3,13}$ wave	OCCUR=2
3±1	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $L_{3,17}$ wave	OCCUR=3
3±1	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $M_{3,19}$ wave	OCCUR=4
2±1	HENDRY	78	MPWA	$\pi N \rightarrow \pi N$ $N_{3,21}$ wave	OCCUR=5

$\Delta(\sim 3000)$ FOOTNOTES

NODE=B127

[1] In addition, KOCH 80 reports some evidence for an S_{31} $\Delta(2700)$ and a P_{33} $\Delta(2800)$.

NODE=B127;LINKAGE=K

$\Delta(\sim 3000)$ REFERENCES

NODE=B127

KOCH	80	Toronto Conf. 3	R. Koch	(KARLT) IJP	REFID=30859
HENDRY	78	PRL 41 222	A.W. Hendry	(IND, LBL) IJP	REFID=30893
Also		ANP 136 1	A.W. Hendry	(IND)	REFID=30901