

# N( $\sim 3000$ Region) Partial-Wave Analyses

## OMITTED FROM SUMMARY TABLE

We list here miscellaneous high-mass candidates for isospin-1/2 resonances found in partial-wave analyses.

Our 1982 edition had an  $N(3245)$ , an  $N(3690)$ , and an  $N(3755)$ , each a narrow peak seen in a production experiment. Since nothing has been heard from them since the 1960's, we declare them to be dead. There was also an  $N(3030)$ , deduced from total cross-section and  $180^\circ$  elastic cross-section measurements; it is the KOCH 80  $L_{1,15}$  state below.

## N( $\sim 3000$ ) BREIT-WIGNER MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b><math>\approx 3000</math> OUR ESTIMATE</b>			
2600	KOCH	80	IPWA $\pi N \rightarrow \pi N D_{13}$
3100	KOCH	80	IPWA $\pi N \rightarrow \pi N L_{1,15}$ wave
3500	KOCH	80	IPWA $\pi N \rightarrow \pi N M_{1,17}$ wave
3500 to 4000	KOCH	80	IPWA $\pi N \rightarrow \pi N N_{1,19}$ wave
$3500 \pm 200$	HENDRY	78	MPWA $\pi N \rightarrow \pi N L_{1,15}$ wave
$3800 \pm 200$	HENDRY	78	MPWA $\pi N \rightarrow \pi N M_{1,17}$ wave
$4100 \pm 200$	HENDRY	78	MPWA $\pi N \rightarrow \pi N N_{1,19}$ wave

## N( $\sim 3000$ ) BREIT-WIGNER WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
$1300 \pm 200$	HENDRY	78	MPWA $\pi N \rightarrow \pi N L_{1,15}$ wave
$1600 \pm 200$	HENDRY	78	MPWA $\pi N \rightarrow \pi N M_{1,17}$ wave
$1900 \pm 300$	HENDRY	78	MPWA $\pi N \rightarrow \pi N N_{1,19}$ wave

## N( $\sim 3000$ ) DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad N\pi$	2–8 %

## N( $\sim 3000$ ) BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{\text{total}}$					$\Gamma_1/\Gamma$
<u>VALUE (%)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>		
<b>2–8 % OUR ESTIMATE</b>					
$6 \pm 2$	HENDRY	78	MPWA $\pi N \rightarrow \pi N L_{1,15}$ wave		
$4.0 \pm 1.5$	HENDRY	78	MPWA $\pi N \rightarrow \pi N M_{1,17}$ wave		
$3.0 \pm 1.5$	HENDRY	78	MPWA $\pi N \rightarrow \pi N N_{1,19}$ wave		

## ***N*(~ 3000) REFERENCES**

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

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