

$N(\sim 3000 \text{ Region})$   
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

| VALUE (MeV)                 | DOCUMENT ID | TECN | COMMENT                                      |
|-----------------------------|-------------|------|----------------------------------------------|
| $\approx 3000$ OUR ESTIMATE |             |      |                                              |
| 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

| VALUE (MeV)    | DOCUMENT ID | TECN | COMMENT                                      |
|----------------|-------------|------|----------------------------------------------|
| $1300 \pm 200$ | 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

| $\Gamma(N\pi)/\Gamma_{\text{total}}$ | DOCUMENT ID | TECN | COMMENT                                      | $\Gamma_1/\Gamma$ |
|--------------------------------------|-------------|------|----------------------------------------------|-------------------|
| $2\text{--}8 \%$ OUR ESTIMATE        |             |      |                                              |                   |
| $6 \pm 2$                            | 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 |                   |

$N(\sim 3000)$  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      |

NODE=B128

NODE=B128

NODE=B128M

NODE=B128M  
→ UNCHECKED ←

OCCUR=2

OCCUR=3

OCCUR=4

OCCUR=2

OCCUR=3

NODE=B128W

NODE=B128W

OCCUR=2

OCCUR=3

NODE=B128215;NODE=B128

DESIG=1

NODE=B128220

NODE=B128R1  
NODE=B128R1  
→ UNCHECKED ←

OCCUR=2

OCCUR=3

NODE=B128

REFID=30859  
REFID=30893  
REFID=30901