

$\Xi(1620)$ $I(J^P) = \frac{1}{2}(??)$ Status: *
 J, P need confirmation.

OMITTED FROM SUMMARY TABLE

What little evidence there is consists of weak signals in the $\Xi\pi$ channel. A number of other experiments (e.g., BORENSTEIN 72 and HASSALL 81) have looked for but not seen any effect.

 $\Xi(1620)$ MASS

| <u>VALUE (MeV)</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> |
|---|-------------|--------------------|-------------|---------------------------------------|
| ≈ 1620 OUR ESTIMATE | | | | |
| 1624 ± 3 | 31 | BRIEFEL | 77 HBC | $K^- p$ 2.87 GeV/c |
| 1633 ± 12 | 34 | DEBELLEFON | 75B HBC | $K^- p \rightarrow \Xi^- \bar{K} \pi$ |
| 1606 ± 6 | 29 | ROSS | 72 HBC | $K^- p$ 3.1–3.7 GeV/c |

 $\Xi(1620)$ WIDTH

| <u>VALUE (MeV)</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> |
|--------------------|-------------|----------------------|-------------|--|
| 22.5 | 31 | ¹ BRIEFEL | 77 HBC | $K^- p$ 2.87 GeV/c |
| 40 ± 15 | 34 | DEBELLEFON | 75B HBC | $K^- p \rightarrow \Xi^- \bar{K} \pi$ |
| 21 ± 7 | 29 | ROSS | 72 HBC | $K^- p \rightarrow$ $\Xi^- \pi^+ K^{*0}(892)$ |

 $\Xi(1620)$ DECAY MODES

| Mode |
|-------------------------|
| $\Gamma_1 \quad \Xi\pi$ |

 $\Xi(1620)$ FOOTNOTES

¹The fit is insensitive to values between 15 and 30 MeV.

 $\Xi(1620)$ REFERENCES

| | | | | |
|--------------------------|-----|----------------|-------------------------------|--------------------|
| HASSALL | 81 | NP B189 397 | J.K. Hassall <i>et al.</i> | (CAVE, MSU) |
| BRIEFEL | 77 | PR D16 2706 | E. Briefel <i>et al.</i> | (BRAN, UMD, SYRA+) |
| Also | 70 | Duke Conf. 317 | E. Briefel <i>et al.</i> | (BRAN, UMD, SYRA+) |
| Hyperon Resonances, 1970 | | | | |
| Also | 75 | PR D12 1859 | E. Briefel <i>et al.</i> | (BRAN, UMD, SYRA+) |
| DEBELLEFON | 75B | NC 28A 289 | A. de Bellefon <i>et al.</i> | (CDEF, SACL) |
| BORENSTEIN | 72 | PR D5 1559 | S.R. Borenstein <i>et al.</i> | (BNL, MICH) I |
| ROSS | 72 | PL 38B 177 | R.T. Ross <i>et al.</i> | (OXF) I |

OTHER RELATED PAPERS

| | | | | |
|-------------------------|----|------------------|-------------------------------|---------------------|
| HUNGERBU... | 74 | PR D10 2051 | V. Hungerbuhler <i>et al.</i> | (YALE, FNAL, BNL+) |
| SCHMIDT | 73 | Purdue Conf. 363 | P.E. Schmidt | (BRAN) |
| KALBFLEISCH | 70 | Duke Conf. 331 | G.R. Kalbfleisch | (BNL) I |
| Hyperon Resonances 1970 | | | | |
| APSELL | 69 | PRL 23 884 | S.P. Apsell <i>et al.</i> | (BRAN, UMD, SYRA+) |
| BARTSCH | 69 | PL 28B 439 | J. Bartsch <i>et al.</i> | (AACH, BERL, CERN+) |