# $\Xi(2250)$

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

OMITTED FROM SUMMARY TABLE

The evidence for this state is mixed. BARTSCH 69 sees a bump of not much statistical significance in $\Lambda\overline{K}\pi$, $\Sigma\overline{K}\pi$, and $\Xi\pi\pi$ mass spectra. GOLDWASSER 70 sees a narrower bump in $\Xi\pi\pi$ at a higher mass. Not seen by HASSALL 81 with 45 events/$\mu$b at 6.5 GeV/$c$. Seen by JENKINS 83. Perhaps seen by BIAGI 87.

## $\Xi(2250)$ MASS

| *VALUE* (MeV) | *EVTS* | *DOCUMENT ID* | | *TECN* | *CHG* | *COMMENT* |
|---|---|---|---|---|---|---|
| **≈ 2250 OUR ESTIMATE** | | | | | | |
| 2189± 7 | 66 | BIAGI | 87 | SPEC | – | $\Xi^-$ Be → ($\Xi^-\pi^+\pi^-$) X |
| 2214± 5 | | JENKINS | 83 | MPS | – | $K^-p \to K^+$ MM |
| 2295±15 | 18 | GOLDWASSER | 70 | HBC | – | $K^-p$ 5.5 GeV/$c$ |
| 2244±52 | 35 | BARTSCH | 69 | HBC | | $K^-p$ 10 GeV/$c$ |

## $\Xi(2250)$ WIDTH

| *VALUE* (MeV) | *EVTS* | *DOCUMENT ID* | | *TECN* | *CHG* | *COMMENT* |
|---|---|---|---|---|---|---|
| 46±27 | 66 | BIAGI | 87 | SPEC | – | $\Xi^-$ Be → ($\Xi^-\pi^+\pi^-$) X |
| < 30 | | GOLDWASSER | 70 | HBC | – | $K^-p$ 5.5 GeV/$c$ |
| 130±80 | | BARTSCH | 69 | HBC | | |

## $\Xi(2250)$ DECAY MODES

| | Mode |
|---|---|
| $\Gamma_1$ | $\Xi\pi\pi$ |
| $\Gamma_2$ | $\Lambda\overline{K}\pi$ |
| $\Gamma_3$ | $\Sigma\overline{K}\pi$ |

## $\Xi(2250)$ REFERENCES


| | | | | |
|---|---|---|---|---|
| BIAGI | 87 | ZPHY C34 15 | S.F. Biagi *et al.* | (BRIS, CERN, GEVA+) |
| JENKINS | 83 | PRL 51 951 | C.M. Jenkins *et al.* | (FSU, BRAN, LBL+) |
| HASSALL | 81 | NP B189 397 | J.K. Hassall *et al.* | (CAVE, MSU) |
| GOLDWASSER | 70 | PR D1 1960 | E.L. Goldwasser, P.F. Schultz | (ILL) |
| BARTSCH | 69 | PL 28B 439 | J. Bartsch *et al.* | (AACH, BERL, CERN+) |