

$\Xi(2250)$

$I(J^P) = \frac{1}{2}(?)$ 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 $\Lambda\bar{K}\pi$, $\Sigma\bar{K}\pi$, 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/ μb 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	– $\Xi^- \text{Be} \rightarrow (\Xi^- \pi^+ \pi^-) X$
2214 ± 5		JENKINS	83	MPS	– $K^- p \rightarrow K^+ \text{MM}$
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	– $\Xi^- \text{Be} \rightarrow (\Xi^- \pi^+ \pi^-) X$
< 30		GOLDWASSER 70	HBC	–	$K^- p$ 5.5 GeV/ c
130 ± 80		BARTSCH	69	HBC	

$\Xi(2250)$ DECAY MODES

Mode	
Γ_1	$\Xi\pi\pi$
Γ_2	$\Lambda\bar{K}\pi$
Γ_3	$\Sigma\bar{K}\pi$

$\Xi(2250)$ REFERENCES

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