

$\Xi(2250)$

$I(J^P) = \frac{1}{2}(?)$ 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						
<u>VALUE (MeV)</u>	<u>EVTs</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>	
≈ 2250 OUR ESTIMATE						
2189 ± 7	66	BIAGI	87	SPEC	—	$\Xi^- \text{Be} \rightarrow (\Xi^- \pi^+ \pi^-)$ X
2214 ± 5		JENKINS	83	MPS	—	$K^- p \rightarrow K^+$ 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						
<u>VALUE (MeV)</u>	<u>EVTs</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>	
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	$\Lambda \overline{K} \pi$					
Γ_3	$\Sigma \overline{K} \pi$					
$\Xi(2250)$ 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+)		