

$\Xi(1620)$

$I(J^P) = \frac{1}{2}(??)$ 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/ <i>c</i>
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/ <i>c</i>

$\Xi(1620)$ 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/ <i>c</i>
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

¹ The 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+)