

$\Xi(1620)$

$I(J^P) = \frac{1}{2}(??)$ 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	+Ansonge, Carter, Neale+	(CAVE, MSU)
BRIEFEL 77	PR D16 2706	+Gourevitch, Chang+	(BRAN, UMD, SYRA, TUFTS)
Also 70	Duke Conf. 317	Briefel+	(BRAN, UMD, SYRA, TUFTS)
Also 75	PR D12 1859	Briefel, Gourevitch+	(BRAN, UMD, SYRA, TUFTS)
DEBELLEFON 75B	NC 28A 289	De Bellefon, Berthon, Billoir+	(CDEF, SACL)
BORENSTEIN 72	PR D5 1559	+Danburg, Kalbfleisch+	(BNL, MICH) I
ROSS 72	PL 38B 177	+Buran, Lloyd, Mulvey, Radojicic	(OXF) I

OTHER RELATED PAPERS

HUNGERBU... 74	PR D10 2051	Hungerbuhler, Majka+	(YALE, FNAL, BNL, PITT)
SCHMIDT 73	Purdue Conf. 363		(BRAN)
KALBFLEISCH 70	Duke Conf. 331		(BNL) I
APSELL 69	PRL 23 884	+	(BRAN, UMD, SYRA, TUFTS)
BARTSCH 69	PL 28B 439	+	(AACH, BERL, CERN, LOIC, VIEN)