

$\Xi(2120)$ 
 $I(J^P) = \frac{1}{2}(??)$  Status: \*  
 $J, P$  need confirmation.

OMITTED FROM SUMMARY TABLE

 $\Xi(2120)$  MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b><math>\approx 2120</math> OUR ESTIMATE</b>				
$2137 \pm 4$	18	<sup>1</sup> CHLIAPNIK...	79 HBC	$K^+ p$ 32 GeV/c
$2123 \pm 7$		<sup>2</sup> GAY	76C HBC	$K^- p$ 4.2 GeV/c

 $\Xi(2120)$  WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<20	18	<sup>1</sup> CHLIAPNIK...	79 HBC	$K^+ p$ 32 GeV/c
$25 \pm 12$		<sup>2</sup> GAY	76C HBC	$K^- p$ 4.2 GeV/c

 $\Xi(2120)$  DECAY MODES

Mode	Fraction ( $\Gamma_j/\Gamma$ )
$\Gamma_1 \quad \Lambda \bar{K}$	seen

 $\Xi(2120)$  BRANCHING RATIOS

$\Gamma(\Lambda \bar{K})/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$
VALUE	
seen	<sup>1</sup> CHLIAPNIK... 79 HBC $K^+ p \rightarrow (\bar{\Lambda} K^+) X$
seen	<sup>2</sup> GAY 76C HBC $K^- p$ 4.2 GeV/c

 $\Xi(2120)$  FOOTNOTES

- <sup>1</sup> CHLIAPNIKOV 79 does not uniquely identify the  $K^+$  in the  $(\bar{\Lambda} K^+) X$  final state. It also reports bumps with fewer events at 2240, 2540, and 2830 MeV.
- <sup>2</sup> GAY 76C sees a 4-standard deviation signal. However, HEMINGWAY 77, with more events from the same experiment points out that the signal is greatly reduced if a cut is made on the 4-momentum  $u$ . This suggests an anomalous production mechanism if the  $\Xi(2120)$  is real.

 $\Xi(2120)$  REFERENCES

CHLIAPNIK... 79	NP B158 253	P.V. Chliapnikov <i>et al.</i>	(CERN, BELG, MONS)
HEMINGWAY 77	PL 68B 197	R.J. Hemingway <i>et al.</i>	(AMST, CERN, NIJM+)
GAY 76C	PL 62B 477	J.B. Gay <i>et al.</i>	(AMST, CERN, NIJM)