

**$\Xi(2370)$**

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

OMITTED FROM SUMMARY TABLE

**$\Xi(2370)$  MASS**

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>
<b><math>\approx 2370</math> OUR ESTIMATE</b>					
2356 ± 10		JENKINS	83	MPS	– $K^- p \rightarrow K^+$ MM
2370	50	HASSALL	81	HBC	–0 $K^- p$ 6.5 GeV/c
2373 ± 8	94	AMIRZADEH	80	HBC	–0 $K^- p$ 8.25 GeV/c
2392 ± 27		DIBIANCA	75	DBC	$\Xi 2\pi$

**$\Xi(2370)$  WIDTH**

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>
80	50	HASSALL	81	HBC	–0 $K^- p$ 6.5 GeV/c
80 ± 25	94	AMIRZADEH	80	HBC	–0 $K^- p$ 8.25 GeV/c
75 ± 69		DIBIANCA	75	DBC	$\Xi 2\pi$

**$\Xi(2370)$  DECAY MODES**

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $\Lambda \bar{K} \pi$ Includes $\Gamma_4 + \Gamma_6$ .	seen
$\Gamma_2$ $\Sigma \bar{K} \pi$ Includes $\Gamma_5 + \Gamma_6$ .	seen
$\Gamma_3$ $\Omega^- K$	
$\Gamma_4$ $\Lambda \bar{K}^*(892)$	
$\Gamma_5$ $\Sigma \bar{K}^*(892)$	
$\Gamma_6$ $\Sigma(1385) \bar{K}$	

**$\Xi(2370)$  BRANCHING RATIOS**

$\Gamma(\Lambda \bar{K} \pi)/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$			
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>
seen	AMIRZADEH	80	HBC	–0 $K^- p$ 8.25 GeV/c

$\Gamma(\Sigma \bar{K} \pi)/\Gamma_{\text{total}}$	$\Gamma_2/\Gamma$			
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>
seen	AMIRZADEH	80	HBC	–0 $K^- p$ 8.25 GeV/c

$[\Gamma(\Lambda\bar{K}\pi) + \Gamma(\Sigma\bar{K}\pi)]/\Gamma_{\text{total}}$		$(\Gamma_1+\Gamma_2)/\Gamma$				
<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>	
seen	50	HASSALL	81	HBC	-0	$K^- p$ 6.5 GeV/c

$\Gamma(\Omega^- K)/\Gamma_{\text{total}}$		$\Gamma_3/\Gamma$				
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>		
0.09 ± 0.04	<sup>1</sup> KINSON	80	HBC	-	$K^- p$ 8.25 GeV/c	

$[\Gamma(\Lambda\bar{K}^*(892)) + \Gamma(\Sigma\bar{K}^*(892))]/\Gamma_{\text{total}}$		$(\Gamma_4+\Gamma_5)/\Gamma$				
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>		
0.22 ± 0.13	<sup>1</sup> KINSON	80	HBC	-	$K^- p$ 8.25 GeV/c	

$\Gamma(\Sigma(1385)\bar{K})/\Gamma_{\text{total}}$		$\Gamma_6/\Gamma$				
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>		
0.12 ± 0.08	<sup>1</sup> KINSON	80	HBC	-	$K^- p$ 8.25 GeV/c	

### $\Xi(2370)$ FOOTNOTES

<sup>1</sup> KINSON 80 is a reanalysis of AMIRZADEH 80 with 50% more events.

### $\Xi(2370)$ REFERENCES

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)
AMIRZADEH	80	PL 90B 324	J. Amirzadeh <i>et al.</i>	(BIRM, CERN, GLAS+) I
KINSON	80	Toronto Conf. 263	J.B. Kinson <i>et al.</i>	(BIRM, CERN, GLAS+) I
DIBIANCA	75	NP B98 137	F.A. Dibianca, R.J. Endorf	(CMU)