$\Xi(2370)$

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

J, P need confirmation.

OMITTED FROM SUMMARY TABLE

$\Xi(2370)$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
≈ 2370 OUR ESTIMATE						
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

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
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 (Γ_i/Γ)
Γ_1	$\Lambda\overline{K}\pi$ Includes $\Gamma_4 + \Gamma_6$.	seen
Γ_2	$\Sigma\overline{K}\pi$ Includes $\Gamma_5 + \Gamma_6$.	seen
Γ_3	$\Omega^- K$	
Γ_4	$\Lambda\overline{K}^*(892)$	
Γ_5	$\Sigma\overline{K}^*(892)$	
Γ_6	$\Sigma(1385)\overline{K}$	

$\Xi(2370)$ BRANCHING RATIOS

$\Gamma(\Lambda\overline{K}\pi)/\Gamma_{total}$ Γ_1/Γ

VALUE	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
seen	AMIRZADEH	80	HBC	−0	$K^- p$ 8.25 GeV/c

$\Gamma(\Sigma\overline{K}\pi)/\Gamma_{total}$ Γ_2/Γ

VALUE	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
seen	AMIRZADEH	80	HBC	−0	$K^- p$ 8.25 GeV/c

$[\Gamma(\Lambda\overline{K}\pi) + \Gamma(\Sigma\overline{K}\pi)]/\Gamma_{total}$ $(\Gamma_1+\Gamma_2)/\Gamma$

VALUE	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
seen	50	HASSALL	81	HBC	−0	$K^- p$ 6.5 GeV/c

$\Gamma(\Omega^- K)/\Gamma_{total}$ Γ_3/Γ

VALUE	DOCUMENT ID		TECN	CHG	COMMENT
0.09 ± 0.04	[1] KINSON	80	HBC	–	$K^- p$ 8.25 GeV/c

$[\Gamma(\Lambda \overline{K}^*(892)) + \Gamma(\Sigma \overline{K}^*(892))]/\Gamma_{total}$ $(\Gamma_4+\Gamma_5)/\Gamma$

VALUE	DOCUMENT ID		TECN	CHG	COMMENT
0.22 ± 0.13	[1] KINSON	80	HBC	–	$K^- p$ 8.25 GeV/c

$\Gamma(\Sigma(1385)\overline{K})/\Gamma_{total}$ Γ_6/Γ

VALUE	DOCUMENT ID		TECN	CHG	COMMENT
0.12 ± 0.08	[1] KINSON	80	HBC	–	$K^- p$ 8.25 GeV/c

$\Xi(2370)$ FOOTNOTES

[1] KINSON 80 is a reanalysis of AMIRZADEH 80 with 50% more events.

$\Xi(2370)$ REFERENCES

JENKINS	83	PRL 51 951	C.M. Jenkins *et al.*	(FSU, BRAN, LBL+)
HASSALL	81	NP B189 397	J.K. Hassall *et al.*	(CAVE, MSU)
AMIRZADEH	80	PL 90B 324	J. Amirzadeh *et al.*	(BIRM, CERN, GLAS+) I
KINSON	80	Toronto Conf. 263	J.B. Kinson *et al.*	(BIRM, CERN, GLAS+) I
DIBIANCA	75	NP B98 137	F.A. Dibianca, R.J. Endorf	(CMU)