NODE=B131

$\Xi(2370)$

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

OMITTED FROM SUMMARY TABLE

$\Xi(2370)$ MASS

NODE=B131M

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
≈ 2370 OUR ESTIMATE						
2356±10		JENKINS	83	MPS	–	$K^- p \to K^+$ 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		$\Xi 2\pi$

NODE=B131M
NODE=B131M
→ UNCHECKED ←

$\Xi(2370)$ WIDTH

NODE=B131W

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		$\Xi 2\pi$

NODE=B131W

$\Xi(2370)$ DECAY MODES

NODE=B131215;NODE=B131

	Mode	Fraction (Γ_i/Γ)	
Γ_1	$\Lambda\overline{K}\pi$	seen	DESIG=1
	Includes $\Gamma_4 + \Gamma_6$.		
Γ_2	$\Sigma\overline{K}\pi$	seen	DESIG=2
	Includes $\Gamma_5 + \Gamma_6$.		
Γ_3	$\Omega^- K$		DESIG=3
Γ_4	$\Lambda\overline{K}^*(892)$		DESIG=4
Γ_5	$\Sigma\overline{K}^*(892)$		DESIG=5
Γ_6	$\Sigma(1385)\overline{K}$		DESIG=6

$\Xi(2370)$ BRANCHING RATIOS

NODE=B131220

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

NODE=B131R1
NODE=B131R1

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

NODE=B131R2
NODE=B131R2

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

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

NODE=B131R3
NODE=B131R3

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

NODE=B131R4
NODE=B131R4

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

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

NODE=B131R5
NODE=B131R5

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

NODE=B131R6
NODE=B131R6

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

$\Xi(2370)$ FOOTNOTES

NODE=B131

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

NODE=B131R;LINKAGE=K

Ξ(2370) REFERENCES

NODE=B131

JENKINS	83	PRL 51 951	C.M. Jenkins *et al.*	(FSU, BRAN, LBL+)	REFID=32525
HASSALL	81	NP B189 397	J.K. Hassall *et al.*	(CAVE, MSU)	REFID=32505
AMIRZADEH	80	PL 90B 324	J. Amirzadeh *et al.*	(BIRM, CERN, GLAS+) I	REFID=32563
KINSON	80	Toronto Conf. 263	J.B. Kinson *et al.*	(BIRM, CERN, GLAS+) I	REFID=32564
DIBIANCA	75	NP B98 137	F.A. Dibianca, R.J. Endorf	(CMU)	REFID=12062