$\Xi(2370)$

$I(J^P) = \frac{1}{2}(?^?)$ 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	–	$K^- p \to K^+$ 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		$\Xi 2\pi$

$\Xi(2370)$ 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.

Ξ(2370) REFERENCES

JENKINS	83	PRL 51 951	+Albright, Diamond+	(FSU, BRAN, LBL, CINC, MASD)
HASSALL	81	NP B189 397	+Ansorge, Carter, Neale+	(CAVE, MSU)
AMIRZADEH	80	PL 90B 324	+	(BIRM, CERN, GLAS, MSU, CURIN) I
KINSON	80	Toronto Conf. 263	+	(BIRM, CERN, GLAS, MSU, CURIN) I
DIBIANCA	75	NP B98 137	+Endorf	(CMU)