

K₂(2250)

$$I(J^P) = \frac{1}{2}(2^-)$$

OMITTED FROM SUMMARY TABLE

This entry contains various peaks in strange meson systems reported in the 2150–2260 MeV region, as well as enhancements seen in the antihyperon-nucleon system, either in the mass spectra or in the $J^P = 2^-$ wave.

K₂(2250) MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT	
2247±17 OUR AVERAGE						
2200±40		¹ ARMSTRONG 83C	OMEG	–	18 $K^- p \rightarrow \Lambda \bar{p} X$	
2235±50		¹ BAUBILLIER 81	HBC	–	8 $K^- p \rightarrow \Lambda \bar{p} X$	
2260±20		¹ CLELAND 81	SPEC	±	50 $K^+ p \rightarrow \Lambda \bar{p} X$	
• • • We do not use the following data for averages, fits, limits, etc. • • •						
2280±20		TIKHOMIROV 03	SPEC		40.0 $\pi^- C \rightarrow K_S^0 K_S^0 K_L^0 X$	
2147± 4	37	CHLIAPNIK...	79	HBC	+	32 $K^+ p \rightarrow \bar{\Lambda} p X$
2240±20	20	LISSAUER 70	HBC		9 $K^+ p$	

¹ $J^P = 2^-$ from moments analysis.

K₂(2250) WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT	
180±30 OUR AVERAGE						
Error includes scale factor of 1.4.						
150±30		² ARMSTRONG 83C	OMEG	–	18 $K^- p \rightarrow \Lambda \bar{p} X$	
210±30		² CLELAND 81	SPEC	±	50 $K^+ p \rightarrow \Lambda \bar{p} X$	
• • • We do not use the following data for averages, fits, limits, etc. • • •						
180±60		TIKHOMIROV 03	SPEC		40.0 $\pi^- C \rightarrow K_S^0 K_S^0 K_L^0 X$	
~ 200		² BAUBILLIER 81	HBC	–	8 $K^- p \rightarrow \Lambda \bar{p} X$	
~ 40	37	CHLIAPNIK...	79	HBC	+	32 $K^+ p \rightarrow \bar{\Lambda} p X$
80±20	20	LISSAUER 70	HBC		9 $K^+ p$	

² $J^P = 2^-$ from moments analysis.

K₂(2250) DECAY MODES

Mode
Γ_1 $K \pi \pi$
Γ_2 $K f_2(1270)$
Γ_3 $K^*(892) f_0(980)$
Γ_4 $p \bar{\Lambda}$

$K_2(2250)$ REFERENCES

TIKHOMIROV	03	PAN 66 828	G.D. Tikhomirov <i>et al.</i>	
		Translated from YAF 66 860.		
ARMSTRONG	83C	NP B227 365	T.A. Armstrong <i>et al.</i>	(BARI, BIRM, CERN+)
BAUBILLIER	81	NP B183 1	M. Baubillier <i>et al.</i>	(BIRM, CERN, GLAS+) JP
CLELAND	81	NP B184 1	W.E. Cleland <i>et al.</i>	(PITT, GEVA, LAUS+) JP
CHLIAPNIK...	79	NP B158 253	P.V. Chliapnikov <i>et al.</i>	(CERN, BELG, MONS)
LISSAUER	70	NP B18 491	D. Lissauer <i>et al.</i>	(LBL)

OTHER RELATED PAPERS

ALEXANDER	68B	PRL 20 755	G. Alexander <i>et al.</i>	(LRL)
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