$K_2(1820)$

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

Observed by ASTON 93 from a partial wave analysis of the $K^-\omega$ system. See mini-review under $K_2(1770)$. Needs confirmation.

$K_2(1820)$ MASS

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
1816±13	[1] ASTON	93	LASS	$11 K^- p \to K^- \omega p$
~ 1840	[2] DAUM	81C	CNTR	$63 K^- p \to K^- 2\pi p$

[1] Fron a partial wave analysis of the $K^-\omega$ system.
[2] From a partial wave analysis of the $K^-2\pi$ system.

$K_2(1820)$ WIDTH

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
276±35	[3] ASTON	93	LASS	$11 K^- p \to K^- \omega p$
~ 230	[4] DAUM	81C	CNTR	$63 K^- p \to K^- 2\pi p$

[3] Fron a partial wave analysis of the $K^-\omega$ system.
[4] From a partial wave analysis of the $K^-2\pi$ system.

$K_2(1820)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$K\phi$	possibly seen
Γ_2	$K\pi\pi$	
Γ_3	$K_2^*(1430)\pi$	seen
Γ_4	$K^*(892)\pi$	seen
Γ_5	$K f_2(1270)$	seen
Γ_6	$K\omega$	seen

$K_2(1820)$ BRANCHING RATIOS

$\Gamma(K_2^*(1430)\pi)/\Gamma(K\pi\pi)$ Γ_3/Γ_2

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
~ 0.77	DAUM	81C	CNTR	$63 K^- p \to \overline{K} 2\pi p$

$\Gamma(K^*(892)\pi)/\Gamma(K\pi\pi)$ Γ_4/Γ_2

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
~ 0.05	DAUM	81C	CNTR	$63 K^- p \to \overline{K} 2\pi p$

$\Gamma(K f_2(1270))/\Gamma(K\pi\pi)$ Γ_5/Γ_2

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
~ 0.18	DAUM	81C	CNTR	$63 K^- p \to \overline{K} 2\pi p$

$K_2(1820)$ REFERENCES

ASTON	93	PL B308 186	+Bienz, Bird+	(SLAC, NAGO, CINC, INUS)
DAUM	81C	NP B187 1	+Hertzberger+	(AMST, CERN, CRAC, MPIM, OXF+)