

**$K_2(1820)$**

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

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

### $K_2(1820)$ MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b><math>1816 \pm 13</math></b>	<sup>1</sup> ASTON	93 LASS	$11K^- p \rightarrow K^- \omega p$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$\sim 1840$	<sup>2</sup> DAUM	81C CNTR	$63 K^- p \rightarrow K^- 2\pi p$
<sup>1</sup> From a partial wave analysis of the $K^- \omega$ system.			
<sup>2</sup> From a partial wave analysis of the $K^- 2\pi$ system.			

### $K_2(1820)$ WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b><math>276 \pm 35</math></b>	<sup>3</sup> ASTON	93 LASS	$11K^- p \rightarrow K^- \omega p$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$\sim 230$	<sup>4</sup> DAUM	81C CNTR	$63 K^- p \rightarrow K^- 2\pi p$
<sup>3</sup> From a partial wave analysis of the $K^- \omega$ system.			
<sup>4</sup> From a partial wave analysis of the $K^- 2\pi$ system.			

### $K_2(1820)$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $K \pi \pi$	
$\Gamma_2$ $K_2^*(1430) \pi$	seen
$\Gamma_3$ $K^*(892) \pi$	seen
$\Gamma_4$ $K f_2(1270)$	seen
$\Gamma_5$ $K \omega$	seen

### $K_2(1820)$ BRANCHING RATIOS

$\Gamma(K_2^*(1430)\pi)/\Gamma(K\pi\pi)$	$\Gamma_2/\Gamma_1$		
VALUE	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$\sim 0.77$	DAUM	81C CNTR	$63K^- p \rightarrow \bar{K} 2\pi p$

$\Gamma(K^*(892)\pi)/\Gamma(K\pi\pi)$	$\Gamma_3/\Gamma_1$		
VALUE	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			
$\sim 0.05$	DAUM	81C CNTR	$63K^- p \rightarrow \bar{K} 2\pi p$

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

$\Gamma_4/\Gamma_1$

VALUE

DOCUMENT ID

TECN

COMMENT

• • • We do not use the following data for averages, fits, limits, etc. • • •

~ 0.18

DAUM

81C CNTR

63K<sup>-</sup> p →  $\bar{K} 2\pi p$

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### $K_2(1820)$ REFERENCES

ASTON  
DAUM

93 PL B308 186  
81C NP B187 1

D. Aston *et al.*  
C. Daum *et al.*

(SLAC, NAGO, CINC, INUS)  
(AMST, CERN, CRAC, MPIM+)

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