

# K<sub>2</sub>(1820)

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

See our mini-review in the 2004 edition of this *Review* (PDG 04) under K<sub>2</sub>(1770).

## K<sub>2</sub>(1820) MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>1816 ± 13</b>	<sup>1</sup> ASTON	93	LASS 11 K <sup>-</sup> p → K <sup>-</sup> ω p
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
~ 1840	<sup>2</sup> DAUM	81C	CNTR 63 K <sup>-</sup> p → K <sup>-</sup> 2π p
<sup>1</sup> From a partial wave analysis of the K <sup>-</sup> ω system.			
<sup>2</sup> From a partial wave analysis of the K <sup>-</sup> 2π system.			

## K<sub>2</sub>(1820) WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>276 ± 35</b>	<sup>3</sup> ASTON	93	LASS 11 K <sup>-</sup> p → K <sup>-</sup> ω p
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
~ 230	<sup>4</sup> DAUM	81C	CNTR 63 K <sup>-</sup> p → K <sup>-</sup> 2π p
<sup>3</sup> From a partial wave analysis of the K <sup>-</sup> ω system.			
<sup>4</sup> From a partial wave analysis of the K <sup>-</sup> 2π system.			

## K<sub>2</sub>(1820) DECAY MODES

Mode	Fraction (Γ <sub>i</sub> /Γ)
Γ <sub>1</sub> K π π	
Γ <sub>2</sub> K <sub>2</sub> <sup>*</sup> (1430) π	seen
Γ <sub>3</sub> K <sup>*</sup> (892) π	seen
Γ <sub>4</sub> K f <sub>2</sub> (1270)	seen
Γ <sub>5</sub> K ω	seen

## K<sub>2</sub>(1820) BRANCHING RATIOS

Γ(K <sub>2</sub> <sup>*</sup> (1430)π)/Γ(K π π)	Γ <sub>2</sub> /Γ <sub>1</sub>		
VALUE	DOCUMENT ID	TECN	COMMENT
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
~ 0.77	DAUM	81C	CNTR 63 K <sup>-</sup> p → $\bar{K}$ 2π p

Γ(K <sup>*</sup> (892)π)/Γ(K π π)	Γ <sub>3</sub> /Γ <sub>1</sub>		
VALUE	DOCUMENT ID	TECN	COMMENT
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
~ 0.05	DAUM	81C	CNTR 63 K <sup>-</sup> p → $\bar{K}$ 2π 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 →  $\bar{K} 2\pi p$

---

### $K_2(1820)$ REFERENCES

PDG	04	PL B592 1	S. Eidelman <i>et al.</i>	
ASTON	93	PL B308 186	D. Aston <i>et al.</i>	(SLAC, NAGO, CINC, INUS)
DAUM	81C	NP B187 1	C. Daum <i>et al.</i>	(AMST, CERN, CRAC, MPIM+)

---