

**$D_{s2}(2573)^\pm$**

$$I(J^P) = 0(?^?)^\pm$$

$J^P$  is natural, width and decay modes consistent with  $2^+$ .

### $D_{s2}(2573)^\pm$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
<b>2573.5 ± 1.7 OUR AVERAGE</b>					
2574.5 ± 3.3 ± 1.6		ALBRECHT	96	ARG	$e^+ e^- \rightarrow D^0 K^+ X$
2573.2 <sup>+1.7</sup> <sub>-1.6</sub> ± 0.9	217	KUBOTA	94	CLE2 +	$e^+ e^- \sim 10.5$ GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2570.0 ± 4.3	25	<sup>1</sup> EVDOKIMOV	04	SELX	600 $\Sigma^- A \rightarrow D^0 K^+ X$
2568.6 ± 3.2	64	<sup>2</sup> HEISTER	02B	ALEP	$e^+ e^- \rightarrow D^0 K^+ X$

<sup>1</sup> Not independent of the mass difference below.

<sup>2</sup> Calculated using  $m_{D^0} = 1864.5 \pm 0.5$  and the mass difference below.

### $m_{D_{s2}(2573)^\pm} - m_{D^0}$

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
<b>704 ± 3 ± 1</b>					
	64	HEISTER	02B	ALEP	$e^+ e^- \rightarrow D^0 K^+ X$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
705.4 ± 4.3	25	<sup>3</sup> EVDOKIMOV	04	SELX	600 $\Sigma^- A \rightarrow D^0 K^+ X$

<sup>3</sup> Systematic errors not estimated.

### $D_{s2}(2573)^\pm$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
<b>15<sup>+5</sup><sub>-4</sub> OUR AVERAGE</b>					
10.4 ± 8.3 ± 3.0		ALBRECHT	96	ARG	$e^+ e^- \rightarrow D^0 K^+ X$
16 <sup>+5</sup> <sub>-4</sub> ± 3	217	KUBOTA	94	CLE2 +	$e^+ e^- \sim 10.5$ GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
14 <sup>+9</sup> <sub>-6</sub>	25	<sup>4</sup> EVDOKIMOV	04	SELX	600 $\Sigma^- A \rightarrow D^0 K^+ X$

<sup>4</sup> Systematic errors not estimated.

### $D_{s2}(2573)^+$ DECAY MODES

$D_{s2}(2573)^-$  modes are charge conjugates of the modes below.

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $D^0 K^+$	seen
$\Gamma_2$ $D^*(2007)^0 K^+$	not seen

## $D_{s2}(2573)^{\pm}$ BRANCHING RATIOS

$\Gamma(D^0 K^+)/\Gamma_{\text{total}}$							$\Gamma_1/\Gamma$
<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>		
<b>seen</b>	217	KUBOTA	94	CLE2	±	e <sup>+</sup> e <sup>-</sup> ~	10.5 GeV

$\Gamma(D^*(2007)^0 K^+)/\Gamma(D^0 K^+)$							$\Gamma_2/\Gamma_1$
<u>VALUE</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>		
<b>&lt;0.33</b>	90	KUBOTA	94	CLE2	+	e <sup>+</sup> e <sup>-</sup> ~	10.5 GeV

## $D_{s2}(2573)^{\pm}$ REFERENCES

EVDOKIMOV	04	PRL 93 242001	A.V. Evdokimov <i>et al.</i>			(SELEX Collab.)
HEISTER	02B	PL B526 34	A. Heister <i>et al.</i>			(ALEPH Collab.)
ALBRECHT	96	ZPHY C69 405	H. Albrecht <i>et al.</i>			(ARGUS Collab.)
KUBOTA	94	PRL 72 1972	Y. Kubota <i>et al.</i>			(CLEO Collab.)

## OTHER RELATED PAPERS

SEMENOV	99	SPU 42 847	S.V. Semenov			Translated from UFN 42 937.
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