

$D_{s2}^*(2573)$

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

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

$D_{s2}^*(2573)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
2572.6 ± 0.9 OUR AVERAGE					
2572.2 ± 0.3 ± 1.0		AUBERT,BE	06E	BABR	$e^+ e^- \rightarrow DKX$
2574.5 ± 3.3 ± 1.6		ALBRECHT	96	ARG	$e^+ e^- \rightarrow D^0 K^+ X$
2573.2 ^{+1.7} _{-1.6} ± 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	¹ EVDOKIMOV	04	SELX	600 $\Sigma^- A \rightarrow D^0 K^+ X$
2568.6 ± 3.2	64	² HEISTER	02B	ALEP	$e^+ e^- \rightarrow D^0 K^+ X$

¹ Not independent of the mass difference below.

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

$m_{D_{s2}^*(2573)} - m_{D^0}$

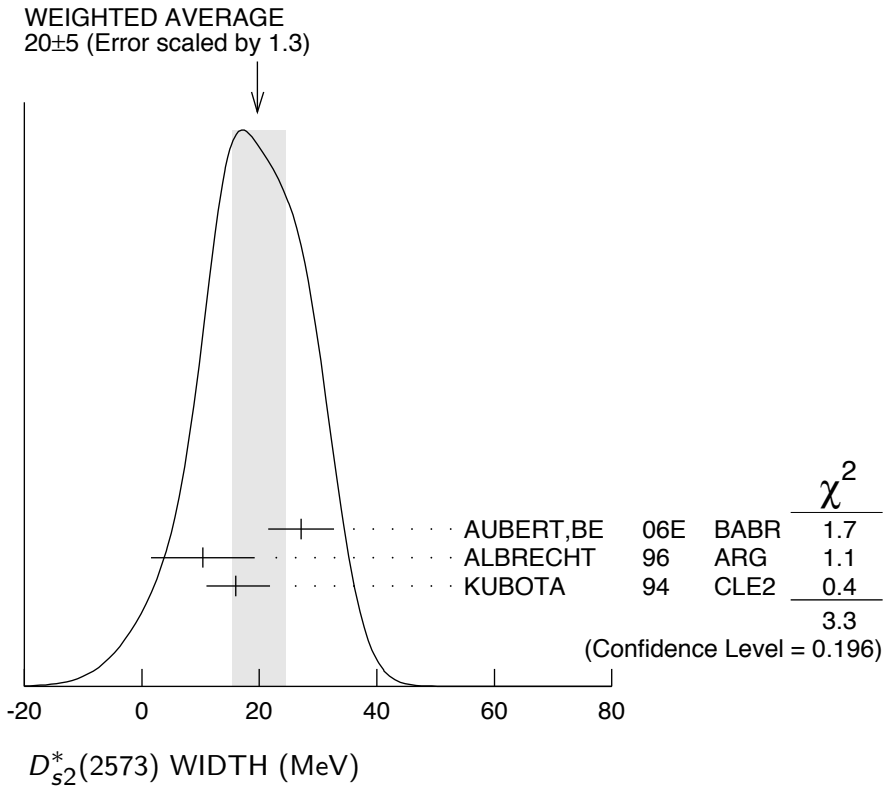
VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
704 ± 3 ± 1	64	HEISTER	02B	ALEP	$e^+ e^- \rightarrow D^0 K^+ X$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
705.4 ± 4.3	25	³ EVDOKIMOV	04	SELX	600 $\Sigma^- A \rightarrow D^0 K^+ X$

³ Systematic errors not estimated.

$D_{s2}^*(2573)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	CHG	COMMENT
20 ± 5 OUR AVERAGE					
Error includes scale factor of 1.3. See the ideogram below.					
27.1 ± 0.6 ± 5.6		AUBERT,BE	06E	BABR	$e^+ e^- \rightarrow DKX$
10.4 ± 8.3 ± 3.0		ALBRECHT	96	ARG	$e^+ e^- \rightarrow D^0 K^+ X$
16 ⁺⁵ ₋₄ ± 3	217	KUBOTA	94	CLE2 +	$e^+ e^- \sim 10.5$ GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
14 ⁺⁹ ₋₆	25	⁴ EVDOKIMOV	04	SELX	600 $\Sigma^- A \rightarrow D^0 K^+ X$

⁴ Systematic errors not estimated.



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

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

Mode	Fraction (Γ_i/Γ)
Γ_1 $D^0 K^+$	seen
Γ_2 $D^*(2007)^0 K^+$	not seen

$D_{s2}^*(2573)^+$ BRANCHING RATIOS

$\Gamma(D^0 K^+)/\Gamma_{\text{total}}$						Γ_1/Γ
VALUE	EVTS	DOCUMENT ID	TECN	CHG	COMMENT	
seen	217	KUBOTA	94	CLE2	\pm	$e^+ e^- \sim 10.5$ GeV

$\Gamma(D^*(2007)^0 K^+)/\Gamma(D^0 K^+)$						Γ_2/Γ_1
VALUE	CL%	DOCUMENT ID	TECN	CHG	COMMENT	
<0.33	90	KUBOTA	94	CLE2	$+$	$e^+ e^- \sim 10.5$ GeV

$D_{s2}^*(2573)$ REFERENCES

AUBERT, BE	06E	PRL 97 222001	B. Aubert <i>et al.</i>	(BABAR Collab.)
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.)