$D^*_{s2}(2573)$

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

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		$e^+e^- \to DKX$
2574.5±3.3±1.6		ALBRECHT	96	ARG		$e^+e^- \to D^0K^+X$
$2573.2^{+1.7}_{-1.6}\pm0.9$	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 $\Sigma^- A \to D^0K^+X$
2568.6±3.2	64	[2] HEISTER	02B	ALEP		$e^+e^- \to D^0K^+X$

[1] Not independent of the mass difference below.
[2] Calculated using m_{D^0} = 1864.5 ± 0.5 MeV and the mass difference below.

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

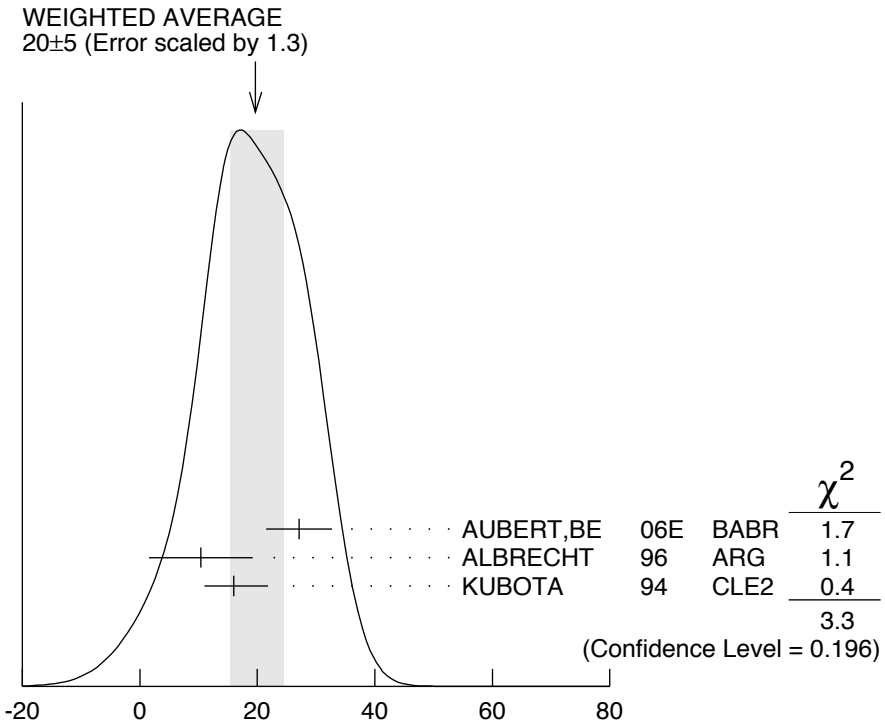
VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
704 ±3 ±1	64	HEISTER	02B	ALEP	$e^+e^- \to D^0K^+X$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
705.4±4.3	25	[3] EVDOKIMOV	04	SELX	600 $\Sigma^- A \to D^0K^+X$

[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		$e^+e^- \to DKX$
10.4±8.3±3.0		ALBRECHT	96	ARG		$e^+e^- \to D^0K^+X$
$16\ ^{+5}_{-4}\ \pm3$	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 $\Sigma^- A \to D^0K^+X$

[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

$\Gamma(D^0 K^+)/\Gamma_{total}$ 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 *et al.*	(BABAR Collab.)
EVDOKIMOV	04	PRL 93 242001	A.V. Evdokimov *et al.*	(SELEX Collab.)
HEISTER	02B	PL B526 34	A. Heister *et al.*	(ALEPH Collab.)
ALBRECHT	96	ZPHY C69 405	H. Albrecht *et al.*	(ARGUS Collab.)
KUBOTA	94	PRL 72 1972	Y. Kubota *et al.*	(CLEO Collab.)