

$D_{sJ}^*(2860)^\pm$

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

OMITTED FROM SUMMARY TABLE

Observed by AUBERT, BE 06E and AUBERT 09AR in inclusive production of DK and D^*K in e^+e^- annihilation. J^P is natural. $D_{sJ}^*(2860)^+$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
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2863.2^{+4.0}_{-2.6} OUR AVERAGE2866.1 \pm 1.0 \pm 6.3 36k ¹ AAIJ 12AU LHCb $pp \rightarrow (DK)^+X$ at 7 TeV2862 \pm 2 \pm ⁵₋₂ 3122 ² AUBERT 09AR BABR $e^+e^- \rightarrow D^{(*)}KX$

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

2856.6 \pm 1.5 \pm 5.0 ³ AUBERT, BE 06E BABR $e^+e^- \rightarrow DKX$ ¹ From the combined fit of the $D^+K_S^0$ and D^0K^+ modes in the model including the $D_{s2}^*(2573)^+$, $D_{s1}^*(2700)^+$ and spin-0 $D_{sJ}^*(2860)^+$.² From simultaneous fits to the two DK mass spectra and to the total D^*K mass spectrum.³ Superseded by AUBERT 09AR. $D_{sJ}^*(2860)^+$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
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58 \pm 11 OUR AVERAGE Error includes scale factor of 2.2.69.9 \pm 3.2 \pm 6.6 36k ⁴ AAIJ 12AU LHCb $pp \rightarrow (DK)^+X$ at 7 TeV48 \pm 3 \pm 6 3122 ⁵ AUBERT 09AR BABR $e^+e^- \rightarrow D^{(*)}KX$

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

47 \pm 7 \pm 10 ⁶ AUBERT, BE 06E BABR $e^+e^- \rightarrow DKX$ ⁴ From the combined fit of the $D^+K_S^0$ and D^0K^+ modes in the model including the $D_{s2}^*(2573)^+$, $D_{s1}^*(2700)^+$ and spin-0 $D_{sJ}^*(2860)^+$.⁵ From simultaneous fits to the two DK mass spectra and to the total D^*K mass spectrum.⁶ Superseded by AUBERT 09AR. $D_{sJ}^*(2860)^\pm$ DECAY MODES

Mode
Γ_1 DK
Γ_2 D^0K^+
Γ_3 $D^+K_S^0$
Γ_4 D^*K
Γ_5 $D^{*0}K^+$
Γ_6 $D^{*+}K_S^0$

$D_{sJ}^*(2860)^\pm$ BRANCHING RATIOS

$\Gamma(D^* K)/\Gamma(D K)$					Γ_4/Γ_1
<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
1.10±0.15±0.19	3122	⁷ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$	
⁷ From the average of the corresponding ratios with $D^{(*)0} K^+$ and $D^{(*)+} K_S^0$.					

$\Gamma(D^{*0} K^+)/\Gamma(D^0 K^+)$					Γ_5/Γ_2
<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●					
1.04±0.17±0.20	2241	⁸ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$	
⁸ From the $D^{*0} K^+$ and $D^0 K^+$, where $D^{*0} \rightarrow D^0 \pi^0$.					

$\Gamma(D^{*+} K_S^0)/\Gamma(D^+ K_S^0)$					Γ_6/Γ_3
<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●					
1.38±0.35±0.49	881	⁹ AUBERT	09AR BABR	$e^+ e^- \rightarrow D^{(*)} K X$	
⁹ From the $D^{*+} K_S^0$ and $D^+ K_S^0$, where $D^{*+} \rightarrow D^+ \pi^0$.					

$D_{sJ}^*(2860)^\pm$ REFERENCES

AAIJ	12AU JHEP 1210 151	R. Aaij <i>et al.</i>			
AUBERT	09AR PR D80 092003	B. Aubert <i>et al.</i>		(LHCb Collab.)	
AUBERT,BE	06E PRL 97 222001	B. Aubert <i>et al.</i>		(BABAR Collb.)	
				(BABAR Collab.)	