

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

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

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

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2863.2^{+4.0}_{-2.6}	OUR AVERAGE			
2866.1 ± 1.0 ± 6.3	36k	¹ AAIJ	12AU LHCb	$pp \rightarrow (DK)^+ X$ at 7 TeV
2862 ± 2 ⁺⁵ ₋₂	3122	² AUBERT	09AR BABR	$e^+e^- \rightarrow D^{(*)} K X$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
2856.6 ± 1.5 ± 5.0		³ AUBERT, BE 06E	BABR	$e^+e^- \rightarrow DK X$

¹ From the combined fit of the $D^+ K_S^0$ and $D^0 K^+$ 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³ Superseded by AUBERT 09AR.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

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
58 ± 11	OUR AVERAGE	Error includes scale factor of 2.2.		
69.9 ± 3.2 ± 6.6	36k	⁴ AAIJ	12AU LHCb	$pp \rightarrow (DK)^+ X$ at 7 TeV
48 ± 3 ± 6	3122	⁵ AUBERT	09AR BABR	$e^+e^- \rightarrow D^{(*)} K X$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
47 ± 7 ± 10		⁶ AUBERT, BE 06E	BABR	$e^+e^- \rightarrow DK X$

⁴ From the combined fit of the $D^+ K_S^0$ and $D^0 K^+$ 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⁶ Superseded by AUBERT 09AR.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	$D^0 K^+$
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>	(LHCb Collab.)
AUBERT	09AR PR D80 092003	B. Aubert <i>et al.</i>	(BABAR Collab.)
AUBERT,BE	06E PRL 97 222001	B. Aubert <i>et al.</i>	(BABAR Collab.)