

$\Xi_c(2980)$ $I(J^P) = \frac{1}{2}(??)$ Status: ***

A broad peak seen in the $\Lambda_c^+ K^- \pi^+$ mass spectrum, and possibly in the $\Lambda_c^+ K_S^0 \pi^-$ spectrum.

 $\Xi_c(2980)$ MASSES $\Xi_c(2980)^+$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2974 ± 5 OUR AVERAGE				Error includes scale factor of 2.3.
2969.3 ± 2.2 ± 1.7	756 ± 206	AUBERT	08J BABR	$e^+ e^- \approx 10.58$ GeV
2978.5 ± 2.1 ± 2.0	405 ± 51	CHISTOV	06 BELL	$e^+ e^- \approx \Upsilon(4S)$

 $\Xi_c(2980)^0$ MASS

The evidence is statistically much weaker for this charge state.

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2974 ± 4 OUR AVERAGE				
2972.9 ± 4.4 ± 1.6	67 ± 44	AUBERT	08J BABR	$e^+ e^- \approx 10.58$ GeV
2977.1 ± 8.8 ± 3.5	42 ± 24	CHISTOV	06 BELL	$e^+ e^- \approx \Upsilon(4S)$

 $\Xi_c(2980)$ WIDTHS $\Xi_c(2980)^+$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
33 ± 8 OUR AVERAGE				Error includes scale factor of 1.3.
27 ± 8 ± 2	756 ± 206	AUBERT	08J BABR	$e^+ e^- \approx 10.58$ GeV
43.5 ± 7.5 ± 7.0	405 ± 51	CHISTOV	06 BELL	$e^+ e^- \approx \Upsilon(4S)$

 $\Xi_c(2980)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
31 ± 7 ± 8	67 ± 44	AUBERT	08J BABR	$e^+ e^- \approx 10.58$ GeV

 $\Xi_c(2980)$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \Lambda_c^+ \bar{K} \pi$	seen
$\Gamma_2 \Sigma_c(2455) \bar{K}$	seen
$\Gamma_3 \Lambda_c^+ \bar{K}$	not seen

 $\Xi_c(2980)$ BRANCHING RATIOS

$\Gamma(\Sigma_c(2455)\bar{K})/\Gamma(\Lambda_c^+\bar{K}\pi)$	Γ_2/Γ_1		
VALUE	DOCUMENT ID	TECN	COMMENT
0.55 ± 0.07 ± 0.13	AUBERT	08J BABR	in $\Lambda_c^+ K^- \pi^+$

Ξ_c (2980) REFERENCES

AUBERT	08J	PR D77 012002	B. Aubert <i>et al.</i>	(BABAR Collab.)
CHISTOV	06	PRL 97 162001	R. Chistov <i>et al.</i>	(BELLE Collab.)
