$\Xi_c(3080)$

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

A narrow peak seen in the $\Lambda_c^+ K^- \pi^+$ and $\Lambda_c^+ K_S^0 \pi^-$ mass spectra.

$\Xi_c(3080)$ MASSES

$\Xi_c(3080)^+$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
3077.2±0.4 OUR AVERAGE					
3077.9±0.9	596	KATO	16	BELL	e^+e^- Υ region
3077.0±0.4±0.2	403 ± 60	AUBERT	08J	BABR	$e^+e^- \approx$ 10.58 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
3076.9±0.3±0.2	210 ± 30	KATO	14	BELL	See KATO 16
3076.7±0.9±0.5	326 ± 40	CHISTOV	06	BELL	See KATO 14

$\Xi_c(3080)^0$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
3079.9±1.4 OUR AVERAGE Error includes scale factor of 1.3.					
3079.3±1.1±0.2	90 ± 27	AUBERT	08J	BABR	$e^+e^- \approx$ 10.58 GeV
3082.8±1.8±1.5	67 ± 20	CHISTOV	06	BELL	$e^+e^- \approx \Upsilon(4S)$

$\Xi_c(3080)$ WIDTHS

$\Xi_c(3080)^+$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
3.6±1.1 OUR AVERAGE Error includes scale factor of 1.5.					
3.0±0.7±0.4	596	KATO	16	BELL	e^+e^- Υ region
5.5±1.3±0.6	403 ± 60	AUBERT	08J	BABR	$e^+e^- \approx$ 10.58 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2.4±0.9±1.6	210 ± 30	KATO	14	BELL	See KATO 16
6.2±1.2±0.8	326 ± 40	CHISTOV	06	BELL	See KATO 14

$\Xi_c(3080)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
5.6±2.2 OUR AVERAGE					
5.9±2.3±1.5	90 ± 27	AUBERT	08J	BABR	$e^+e^- \approx$ 10.58 GeV
5.2±3.1±1.8	67 ± 20	CHISTOV	06	BELL	$e^+e^- \approx \Upsilon(4S)$

$\Xi_c(3080)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\Lambda_c^+ \overline{K} \pi$	seen
Γ_2	$\Sigma_c(2455) \overline{K}$	seen
Γ_3	$\Sigma_c(2455)^{++} K^-$	seen
Γ_4	$\Sigma_c(2520)^{++} K^-$	seen

Γ_5	$\Sigma_c(2455)\overline{K} + \Sigma_c(2520)\overline{K}$	seen
Γ_6	$\Lambda_c^+ \overline{K}$	not seen
Γ_7	$\Lambda_c^+ \overline{K} \pi^+ \pi^-$	not seen
Γ_8	ΛD^+	seen

$\Xi_c(3080)$ BRANCHING RATIOS

$\Gamma(\Sigma_c(2455)\overline{K})/\Gamma(\Lambda_c^+ \overline{K}\pi)$ Γ_2/Γ_1

VALUE	DOCUMENT ID		TECN	COMMENT
0.45±0.06 OUR AVERAGE				
0.45±0.05±0.05	AUBERT	08J	BABR	in $\Lambda_c^+ K^- \pi^+$
0.44±0.12±0.07	AUBERT	08J	BABR	in $\Lambda_c^+ K_S^0 \pi^-$

$\Gamma(\Sigma_c(2520)^{++} K^-)/\Gamma(\Sigma_c(2455)^{++} K^-)$ Γ_4/Γ_3

VALUE	DOCUMENT ID		TECN	COMMENT
1.07±0.27±0.04	KATO	16	BELL	234 and 176 evts

$[\Gamma(\Sigma_c(2455)\overline{K}) + \Gamma(\Sigma_c(2520)\overline{K})]/\Gamma(\Lambda_c^+ \overline{K}\pi)$ Γ_5/Γ_1

VALUE	DOCUMENT ID		TECN	COMMENT
0.89±0.12 OUR AVERAGE				
0.95±0.14±0.06	AUBERT	08J	BABR	in $\Lambda_c^+ K^- \pi^+$
0.78±0.21±0.05	AUBERT	08J	BABR	in $\Lambda_c^+ K_S^0 \pi^-$

$\Gamma(\Lambda D^+)/\Gamma(\Sigma_c(2455)^{++} K^-)$ Γ_8/Γ_3

VALUE	DOCUMENT ID		TECN	COMMENT
1.29±0.30±0.15	KATO	16	BELL	186 and 176 evts

$\Xi_c(3080)$ REFERENCES

KATO	16	PR D94 032002	Y. Kato *et al.*	(BELLE Collab.)
KATO	14	PR D89 052003	Y. Kato *et al.*	(BELLE Collab.)
AUBERT	08J	PR D77 012002	B. Aubert *et al.*	(BABAR Collab.)
CHISTOV	06	PRL 97 162001	R. Chistov *et al.*	(BELLE Collab.)