

$\Xi_c(3080)$

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

$\Xi_c(3080)$ 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	$e^+e^- \Upsilon$ 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	$e^+e^- \Upsilon$ 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)
$\Gamma_1 \Lambda_c^+ \overline{K} \pi$	seen
$\Gamma_2 \Sigma_c(2455) \overline{K}$	seen
$\Gamma_3 \Sigma_c(2455)^{++} K^-$	seen
$\Gamma_4 \Sigma_c(2520)^{++} K^-$	seen

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

$\Xi_c(3080)$ BRANCHING RATIOS

$\Gamma(\Sigma_c(2455)\bar{K})/\Gamma(\Lambda_c^+\bar{K}\pi)$				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
$[\Gamma(\Sigma_c(2455)\bar{K}) + \Gamma(\Sigma_c(2520)\bar{K})]/\Gamma(\Lambda_c^+\bar{K}\pi)$				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 <i>et al.</i>	(BELLE Collab.)
KATO	14	PR D89 052003	Y. Kato <i>et al.</i>	(BELLE Collab.)
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.)