

$\Xi_c(3080)$

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

NODE=B147

 $\Xi_c(3080)$ MASSES

NODE=B147205

 $\Xi_c(3080)^+$ MASSNODE=B147M+
NODE=B147M+

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
3077.2±0.4 OUR AVERAGE				
3077.9±0.9	596	KATO	16 BELL	$e^+e^- \gamma$ 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

 $\Xi_c(3080)^0$ MASSNODE=B147M0
NODE=B147M0

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	$e^+e^- \approx \gamma(4S)$

 $\Xi_c(3080)$ WIDTHS

NODE=B147210

 $\Xi_c(3080)^+$ WIDTHNODE=B147W+
NODE=B147W+

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	$e^+e^- \gamma$ 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

 $\Xi_c(3080)^0$ WIDTHNODE=B147W0
NODE=B147W0

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	$e^+e^- \approx \gamma(4S)$

 $\Xi_c(3080)$ DECAY MODES

NODE=B147215;NODE=B147

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad \Lambda_c^+ \bar{K} \pi$	seen
$\Gamma_2 \quad \Sigma_c(2455) \bar{K}$	seen
$\Gamma_3 \quad \Sigma_c(2455)^{++} K^-$	seen
$\Gamma_4 \quad \Sigma_c(2520)^{++} K^-$	seen
$\Gamma_5 \quad \Sigma_c(2455) \bar{K} + \Sigma_c(2520) \bar{K}$	seen
$\Gamma_6 \quad \Lambda_c^+ \bar{K}$	not seen
$\Gamma_7 \quad \Lambda_c^+ \bar{K} \pi^+ \pi^-$	not seen
$\Gamma_8 \quad \Lambda D^+$	seen

DESIG=1;OUR EST;→ UNCHECKED ←
 DESIG=2;OUR EST;→ UNCHECKED ←
 DESIG=7;OUR EST;→ UNCHECKED ←
 DESIG=8;OUR EST;→ UNCHECKED ←
 DESIG=3;OUR EST;→ UNCHECKED ←
 DESIG=4;OUR EST;→ UNCHECKED ←
 DESIG=5;OUR EST;→ UNCHECKED ←
 DESIG=6;OUR EST;→ UNCHECKED ←

 $\Xi_c(3080)$ BRANCHING RATIOS

NODE=B147220

 $\Gamma(\Sigma_c(2455) \bar{K})/\Gamma(\Lambda_c^+ \bar{K} \pi)$ 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 $\Lambda_c^+ K_S^0 \pi^-$

NODE=B147R01
NODE=B147R01

OCCUR=2

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

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

NODE=B147R03
NODE=B147R03

$$\frac{[\Gamma(\Sigma_c(2455)\bar{K}) + \Gamma(\Sigma_c(2520)\bar{K})]}{\Gamma(\Lambda_c^+ \bar{K} \pi)}$$

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 $\Lambda_c^+ K_S^0 \pi^-$

NODE=B147R02
NODE=B147R02

OCCUR=2

$$\frac{\Gamma(\Lambda D^+)}{\Gamma(\Sigma_c(2455)^{++} K^-)}$$

Γ_8/Γ_3

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

NODE=B147R00
NODE=B147R00

$\Xi_c(3080)$ REFERENCES

NODE=B147

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.)

REFID=57420
REFID=55801
REFID=52168
REFID=51431