



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

The  $\Xi_c^{'+}$  and  $\Xi_c^{\prime 0}$  presumably complete the SU(3) sextet whose other members are the  $\Sigma_c^{++}$ ,  $\Sigma_c^+$ ,  $\Sigma_c^0$ , and  $\Omega_c^0$ : see Fig. 5 in the “Quark Model” review. The quantum numbers given above come from this presumption but have not been measured.

## $\Xi_c^{'+}$ MASS

The mass is obtained from the mass-difference measurement that follows.

VALUE (MeV)	DOCUMENT ID
<b>2578.2±0.5 OUR FIT</b>	Error includes scale factor of 1.1.

## $\Xi_c^{'+} - \Xi_c^+$ MASS DIFFERENCE

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>110.5±0.4 OUR FIT</b>				
<b>110.5±0.1±0.4</b>	7k	YELTON	16	BELLE $e^+e^-$ , $\Upsilon$ regions
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
107.8±1.7±2.5	25	JESSOP	99	CLE2 $e^+e^- \approx \Upsilon(4S)$

## $\Xi_c^{'+} - \Xi_c^{\prime 0}$ MASS DIFFERENCE

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>-0.5±0.6 OUR FIT</b>			
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
-0.8±0.1±0.5	YELTON	16	BELLE 7055 and 11,560 evts

## $\Xi_c^{'+}$ DECAY MODES

The  $\Xi_c^{'+} - \Xi_c^+$  mass difference is too small for any strong decay to occur.

Mode	Fraction ( $\Gamma_j/\Gamma$ )
$\Gamma_1 \quad \Xi_c^+ \gamma$	seen

## $\Xi_c^{'+}$ REFERENCES

YELTON	16	PR D94 052011	J. Yelton <i>et al.</i>	(BELLE Collab.)
JESSOP	99	PRL 82 492	C.P. Jessop <i>et al.</i>	(CLEO Collab.)