$\Xi_c'^{+}$

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

The $\Xi_c'^{+}$ and $\Xi_c'^{0}$ presumably complete the SU(3) sextet whose other members are the Σ_c^{++}, Σ_c^{+}, Σ_c^{0}, and Ω_c^{0}: see Fig. 3 in the Note on Charmed Baryons just before the Λ_c^{+} Listings. 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*
2575.7±3.1 OUR FIT	

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

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
107.8±3.0 OUR FIT					
107.8±1.7±2.5	25	JESSOP	99	CLE2	$e^+e^- \approx \Upsilon(4S)$

$\Xi_c'^{+}$ DECAY MODES

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

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\Xi_c^{+}\gamma$	seen

$\Xi_c'^{+}$ REFERENCES

JESSOP 99 PRL 82 492 C.P. Jessop *et al.* (CLEO Collab.)