

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

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

Ξ'0 MASS

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

VALUE (MeV)

DOCUMENT ID

2578.7±0.5 OUR FIT

$=_c^{\prime 0} - =_c^0$ MASS DIFFERENCE

| VALUE (MeV) | <u>EVTS</u> | DOCUMENT IL |) | TECN | COMMENT | |
|---|-------------|-------------|----|------|-------------------------------|--|
| 108.3±0.4 OUR FIT | | | | | | |
| $108.3 \pm 0.1 \pm 0.4$ | 11.5k | YELTON | 16 | BELL | e^+e^- , γ regions | |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | | | |
| $107.0 \pm 1.4 \pm 2.5$ | 28 | JESSOP | 99 | CLE2 | $e^+e^- \approx \Upsilon(4S)$ | |

$\equiv_c^{\prime 0}$ DECAY MODES

The $\Xi_c^{\prime 0}$ - Ξ_c^0 mass difference is too small for any strong decay to occur.

| | Mode | Fraction (Γ_i/Γ) |
|-----------------------|---------------------|------------------------------|
| $\overline{\Gamma_1}$ | $\equiv_c^0 \gamma$ | seen |

$\equiv_c^{\prime 0}$ REFERENCES

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

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