



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

The  $\Xi_c'^+$  and  $\Xi_c'^0$  presumably complete the SU(3) sextet whose other members are the  $\Sigma_c^{++}$ ,  $\Sigma_c^+$ ,  $\Sigma_c^0$ , and  $\Omega_c^0$ : see Fig.3 in the Note on Charmed Baryons just before the the  $\Lambda_c^+$  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.

| <u>VALUE (MeV)</u>        | <u>DOCUMENT ID</u> |
|---------------------------|--------------------|
| <b>2574.1±3.3 OUR FIT</b> |                    |

**$\Xi_c'^+ - \Xi_c^+$  MASS DIFFERENCE**

| <u>VALUE (MeV)</u>       | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u>              |
|--------------------------|-------------|--------------------|-------------|-----------------------------|
| <b>107.8±3.0 OUR FIT</b> |             |                    |             |                             |
| <b>107.8±1.7±2.5</b>     | 25          | JESSOP             | 99 CLE2     | $e^+e^- \approx \gamma(4S)$ |

**$\Xi_c'^+$  DECAY MODES**

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

| <u>Mode</u>                     | <u>Fraction (<math>\Gamma_i/\Gamma</math>)</u> |
|---------------------------------|------------------------------------------------|
| $\Gamma_1 \quad \Xi_c^+ \gamma$ | seen                                           |

**$\Xi_c'^+$  REFERENCES**

|        |    |            |                           |                |
|--------|----|------------|---------------------------|----------------|
| JESSOP | 99 | PRL 82 492 | C.P. Jessop <i>et al.</i> | (CLEO Collab.) |
|--------|----|------------|---------------------------|----------------|