Ξ_{cc}^{+}

$I(J^P) = ?(?^?)$ Status: $*$

OMITTED FROM SUMMARY TABLE

MATTSON 02 claims "an excess of 15.9 events over an expected background of 6.1 ± 0.5 events, a statistical significance of 6.3σ" in the $\Lambda_c^+ K^- \pi^+$ invariant-mass spectrum. The probability that the peak is a fluctuation increases from 1.0×10^{-6} to 1.1×10^{-4} when the number of bins searched is considered.

See the paper for various other tests made of the significance of the signal. Confirmation is needed before the state can be considered to be established.

Ξ_{cc}^{+} MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
3519 ±1	16	[1] MATTSON	02	SELX	Σ^- nucleus, $\approx$ 600 GeV

[1] This error is statistical; MATTSON 02 does not give a systematic uncertainty on the mass.

Ξ_{cc}^{+} MEAN LIFE

VALUE (10^{-15} s)	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<33	90	MATTSON	02	SELX	Σ^- nucleus, $\approx$ 600 GeV

Ξ_{cc}^{+} REFERENCES

MATTSON 02 PRL 89 112001 M. Mattson *et al.* (FNAL SELEX Collab.)