

$\Xi_c(2815)$

$$I(J^P) = \frac{1}{2}(\frac{3}{2}^-) \text{ Status: } ***$$

A narrow peak seen in the $\Xi_c \pi \pi$ mass spectrum. The simplest assignment is that this belongs to the same SU(4) multiplet as the $\Lambda(1520)$ and the $\Lambda_c(2625)$, but the spin and parity have not been measured.

$\Xi_c(2815)$ MASSES

The masses are obtained from the mass-difference measurements that follow.

$\Xi_c(2815)^+$ MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>
2814.9 ± 1.8 OUR FIT	

$\Xi_c(2815)^0$ MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>
2819.0 ± 2.5 OUR FIT	

$\Xi_c(2815) - \Xi_c$ MASS DIFFERENCES

$m_{\Xi_c(2815)^+} - m_{\Xi_c^+}$

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
348.6 ± 1.2 OUR FIT				
348.6 ± 0.6 ± 1.0	20	ALEXANDER 99B	CLE2	$e^+ e^- \approx \Upsilon(4S)$

$m_{\Xi_c(2815)^0} - m_{\Xi_c^0}$

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
347.2 ± 2.1 OUR FIT				
347.2 ± 0.7 ± 2.0	9	ALEXANDER 99B	CLE2	$e^+ e^- \approx \Upsilon(4S)$

$\Xi_c(2815)$ WIDTHS

$\Xi_c(2815)^+$ WIDTH

<u>VALUE (MeV)</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
< 3.5	90	ALEXANDER 99B	CLE2	$e^+ e^- \approx \Upsilon(4S)$

$\Xi_c(2815)^0$ WIDTH

<u>VALUE (MeV)</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
< 6.5	90	ALEXANDER 99B	CLE2	$e^+ e^- \approx \Upsilon(4S)$

$\Xi_c(2815)$ DECAY MODES

The $\Xi_c \pi \pi$ modes are consistent with being entirely via $\Xi_c(2645) \pi$.

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\Xi_c^+ \pi^+ \pi^-$	seen
Γ_2	$\Xi_c^0 \pi^+ \pi^-$	seen

$\Xi_c(2815)$ REFERENCES

ALEXANDER 99B PRL 83 3390

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(CLEO Collab.)