

$\Sigma_c(2800)$

$I(J^P) = 1(?^?)$ Status: ***

Seen in the $\Lambda_c^+ \pi^+$, $\Lambda_c^+ \pi^0$, and $\Lambda_c^+ \pi^-$ mass spectra.

$\Sigma_c(2800)$ MASSES

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

$\Sigma_c(2800)^{++}$ MASS

VALUE (MeV) DOCUMENT ID

2801⁺⁴₋₆ OUR FIT

$\Sigma_c(2800)^+$ MASS

VALUE (MeV) DOCUMENT ID

2792⁺¹⁴₋₅ OUR FIT

$\Sigma_c(2800)^0$ MASS

VALUE (MeV) DOCUMENT ID

2802⁺⁴₋₇ OUR FIT

$\Sigma_c(2800)$ MASS DIFFERENCES

$m_{\Sigma_c(2800)^{++}} - m_{\Lambda_c^+}$

VALUE (MeV) EVTS DOCUMENT ID TECN COMMENT

514⁺⁴₋₆ OUR FIT

514.5^{+3.4+2.8}_{-3.1-4.9} 2810⁺¹⁰⁹⁰₋₇₇₅ MIZUK 05 BELL $e^+ e^- \approx \gamma(4S)$

$m_{\Sigma_c(2800)^+} - m_{\Lambda_c^+}$

VALUE (MeV) EVTS DOCUMENT ID TECN COMMENT

505⁺¹⁴₋₅ OUR FIT

505.4^{+5.8+12.4}_{-4.6-2.0} 1540⁺¹⁷⁵⁰₋₁₀₅₀ MIZUK 05 BELL $e^+ e^- \approx \gamma(4S)$

$m_{\Sigma_c(2800)^0} - m_{\Lambda_c^+}$

VALUE (MeV) EVTS DOCUMENT ID TECN COMMENT

515⁺⁴₋₇ OUR FIT

515.4^{+3.2+2.1}_{-3.1-6.0} 2240⁺¹³⁰⁰₋₇₄₀ MIZUK 05 BELL $e^+ e^- \approx \gamma(4S)$

$\Sigma_c(2800)$ WIDTHS

$\Sigma_c(2800)^{++}$ WIDTH

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
75^{+18+12}_{-13-11}	2810^{+1090}_{-775}	MIZUK	05	BELL $e^+ e^- \approx \Upsilon(4S)$

$\Sigma_c(2800)^+$ WIDTH

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
62^{+37+52}_{-23-38}	1540^{+1750}_{-1050}	MIZUK	05	BELL $e^+ e^- \approx \Upsilon(4S)$

$\Sigma_c(2800)^0$ WIDTH

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
61^{+18+22}_{-13-13}	2240^{+1300}_{-740}	MIZUK	05	BELL $e^+ e^- \approx \Upsilon(4S)$

$\Sigma_c(2800)$ DECAY MODES

<u>Mode</u>	<u>Fraction (Γ_i/Γ)</u>
$\Gamma_1 \Lambda_c^+ \pi$	seen

$\Sigma_c(2800)$ REFERENCES

MIZUK	05	PRL 94 122002	R. Mizuk <i>et al.</i>	(BELLE Collab.)
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