

$\Lambda_c(2940)^+$

$I(J^P) = 0(?^?)$ Status: ***

A fairly narrow peak of good statistical significance first seen in the ρD^0 mass spectrum. It is not seen in ρD^+ , and thus it is probably a Λ_c^+ and not a Σ_c . It is also seen in $\Sigma_c(2455)^{0,++} \pi^\pm$.

$\Lambda_c(2940)^+$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2939.3^{+1.4}_{-1.5}				OUR AVERAGE
2939.8 ± 1.3 ± 1.0	2280 ± 310	AUBERT	07 BABR	in ρD^0
2938.0 ± 1.3 ^{+2.0} _{-4.0}	220 ⁺⁸⁰ ₋₆₀	MIZUK	07 BELL	in $\Sigma_c(2455)^{0,++} \pi^\pm$

$\Lambda_c(2940)^+$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
17⁺⁸₋₆				OUR AVERAGE
17.5 ± 5.2 ± 5.9	2280 ± 310	AUBERT	07 BABR	in ρD^0
13 ⁺⁸ ₋₅ ⁺²⁷ ₋₇	220 ⁺⁸⁰ ₋₆₀	MIZUK	07 BELL	in $\Sigma_c(2455)^{0,++} \pi^\pm$

$\Lambda_c(2940)^+$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
Γ_1 ρD^0	seen
Γ_2 $\Sigma_c(2455)^{0,++} \pi^\pm$	seen

$\Lambda_c(2940)^+$ REFERENCES

AUBERT	07	PRL 98 012001	B. Aubert <i>et al.</i>	(BABAR Collab.)
MIZUK	07	PRL 98 262001	R. Mizuk <i>et al.</i>	(BELLE Collab.)