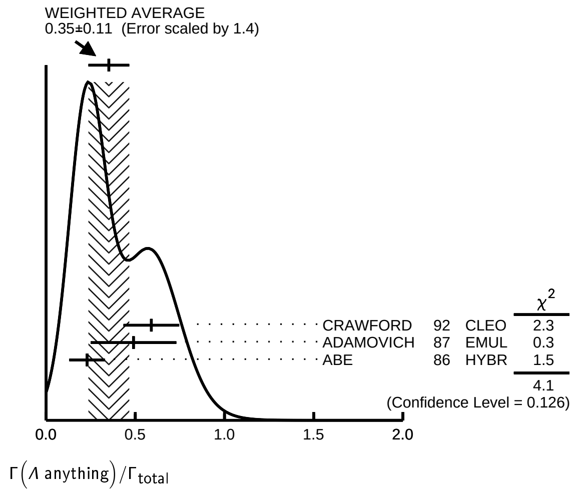

$\Gamma(\Sigma^{\pm}\text{anything})/\Gamma_{\text{total}}$ — Γ_{48}/Γ

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.1 ±0.05	5	ABE	86	HYBR	20 GeV γp

$\Gamma(e^+\text{anything})/\Gamma_{\text{total}}$ — Γ_{49}/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.045±0.017	VELLA	82	MRK2	e^+e^- 4.5–6.8 GeV

$\Gamma(pe^+\text{anything})/\Gamma_{\text{total}}$ — Γ_{50}/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.018±0.009	[10] VELLA	82	MRK2	e^+e^- 4.5–6.8 GeV

[10] VELLA 82 includes protons from Λ decay.

$\Gamma(\Lambda e^+\text{anything})/\Gamma_{\text{total}}$ — Γ_{51}/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.014±0.005 OUR FIT				
0.011±0.008	[11] VELLA	82	MRK2	e^+e^- 4.5–6.8 GeV

[11] VELLA 82 includes Λ's from Σ^0 decay.

$\Gamma(\Lambda e^+\text{anything})/\Gamma(pK^-\pi^+)$ — Γ_{51}/Γ_2

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.33±0.11 OUR FIT					
0.37±0.11±0.08	73	ALBRECHT	91G	ARG	$e^+e^- \approx$ 10.4 GeV

$\Gamma(\Lambda\mu^+\text{anything})/\Gamma(pK^-\pi^+)$ — Γ_{52}/Γ_2

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.35±0.18±0.09	30	ALBRECHT	91G	ARG	$e^+e^- \approx$ 10.4 GeV

$\Gamma(\Lambda\pi^+\pi^+\pi^-)/\Gamma(\Lambda e^+\text{anything})$ — Γ_{23}/Γ_{51}

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<1.7	90	KLEIN	89	MRK2	e^+e^- 29 GeV

Λ_c^+ DECAY PARAMETERS

See the Note on Baryon Decay Parameters in the neutron Listings.

α FOR $\Lambda_c^+ \to \Lambda\pi^+$

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
−1.03±0.29 OUR AVERAGE					
−0.96 ±0.42		ALBRECHT	92	ARG	$e^+e^- \approx$ 10.4 GeV
−1.1 ±0.4	86	AVERY	90B	CLEO	$e^+e^- \approx$ 10.6 GeV

α FOR $\Lambda_c^+ \to \Lambda e^+\nu_e$

VALUE	DOCUMENT ID		TECN	COMMENT
$\mathbf{-0.89^{+0.17}_{-0.11}{}^{+0.09}_{-0.05}}$	BERGFELD	94	CLEO	$e^+e^- \approx \Upsilon(4S)$

Λ_c^+ REFERENCES

We have omitted some papers that have been superseded by later experiments. The omitted papers may be found in our 1992 edition (Physical Review **D45**, 1 June, Part II) or in earlier editions.

AVERY	94	PL B325 257	+Freyberger, Rodriguez+	(CLEO Collab.)
BERGFELD	94	PL B323 219	+Eisenstein, Gollin, Ong+	(CLEO Collab.)
FRABETTI	94E	PL B328 193	+Cheung, Cumalat+	(FNAL E687 Collab.)
AVERY	93	PRL 71 2391	+Freyberger, Rodriguez+	(CLEO Collab.)
BOZEK	93	PL B312 247	+Barlag, Becker, Boehringer+	(CERN NA32 Collab.)
FRABETTI	93D	PRL 70 1755	+Cheung, Cumalat+	(FNAL E687 Collab.)
FRABETTI	93H	PL B314 477	+Cheung, Cumalat+	(FNAL E687 Collab.)
KUBOTA	93	PRL 71 3255	+Lattery, Nelson, Patton+	(CLEO Collab.)
ALBRECHT	92	PL B274 239	+Ehrlichmann, Hamacher, Krueger+	(ARGUS Collab.)
ALBRECHT	92O	ZPHY C56 1	+Cronstroem, Ehrlichmann+	(ARGUS Collab.)
BARLAG	92	PL B283 465	+Becker, Bozek, Boehringer+	(ACCMOR Collab.)
CRAWFORD	92	PR D45 752	+Fulton, Jensen, Johnson+	(CLEO Collab.)
JEZABEK	92	PL B286 175	+Rybicki, Rylko	(CRAC)
ALBRECHT	91G	PL B269 234	+Ehrlichmann, Hamacher+	(ARGUS Collab.)
AVERY	91	PR D43 3599	+Besson, Garren, Yelton+	(CLEO Collab.)
ALVAREZ	90	ZPHY C47 539	+Barate, Bloch, Bonamy+	(CERN NA14/2 Collab.)
ALVAREZ	90B	PL B246 256	+Barate, Bloch, Bonamy+	(CERN NA14/2 Collab.)
ANJOS	90	PR D41 801	+Appel, Bean+	(FNAL E691 Collab.)
AVERY	90B	PRL 65 2842	+Besson, Garren, Yelton, Kinoshita+	(CLEO Collab.)
BARLAG	90D	ZPHY C48 29	+Becker, Boehringer, Bosman+	(ACCMOR Collab.)
FRABETTI	90	PL B251 639	+Bogart, Cheung, Coteus+	(FNAL E687 Collab.)
BARLAG	89	PL B218 374	+Becker, Boehringer, Bosman+	(ACCMOR Collab.)
KLEIN	89	PRL 62 2444	+Himel, Abrams, Amidei, Baden+	(Mark II Collab.)
AGUILAR-...	88B	ZPHY C40 321	Aguilar-Benitez, Allison, Bailly+	(LEBC-EHS Collab.)
Also	87	PL B189 254	Aguilar-Benitez, Allison, Bailly+	(LEBC-EHS Collab.)
Also	87B	PL B199 462	Aguilar-Benitez, Allison, Bailly+	(LEBC-EHS Collab.)
Also	88	SJNP 48 833	Begalli, Otter, Schulte, Gensch+	(LEBC-EHS Collab.)
		Translated from YAF 48 1310.		
ALBRECHT	88C	PL B207 109	+	(ARGUS Collab.)
ALBRECHT	88E	PL B210 263	+Boeckmann, Glaeser+	(ARGUS Collab.)
ANJOS	88B	PRL 60 1379	+Appel+	(FNAL E691 Collab.)
ADAMOVICH	87	EPL 4 887	+Alexandrov, Bolta+	(Photon Emulsion Collab.)
Also	87	SJNP 46 447	Viaggi, Gessaroli+	(Photon Emulsion Collab.)
		Translated from YAF 46 799.		
AMENDOLIA	87	ZPHY C36 513	+Bagliesi, Batignani, Beck+	(CERN NA1 Collab.)
BARLAG	87	PL B184 283	+	(ACCMOR Collab.)
JONES	87	ZPHY C36 593	+Jones, Kennedy, O'Neale+	(CERN WA21 Collab.)
ABE	86	PR D33 1	+	(SLAC Hybrid Facility Photon Collab.)
AMMAR	86	JETPL 43 515	+Ammosov, Bakic, Baranov, Burnett+	(ITEP)
		Translated from ZETFP 43 401.		
USHIDA	86	PRL 56 1767	+Kondo, Tasaka, Park+	(FNAL E653 Collab.)
BOWCOCK	85	PRL 55 923	+Giles, Hassard, Kinoshita+	(CLEO Collab.)
ALEEV	84	ZPHY C23 333	+Arefiev, Balandin, Berdyshev+	(BIS-2 Collab.)
BOSETTI	82	PL 109B 234	+Graessler+	(AACH3, BONN, CERN, MPIM, OXF)
VELLA	82	PRL 48 1515	+Trilling, Abrams, Alam+	(SLAC, LBL, UCB)
BASILE	81B	NC 62A 14	+Romeo+	(CERN, BGNA, PGIA, FRAS)
RUSSELL	81	PRL 46 799	+Avery, Butler, Gladding+	(ILL, FNAL, COLU)
ABRAMS	80	PRL 44 10	+Alam, Blocker, Boyarski+	(SLAC, LBL)
CALICCHIO	80	PL 93B 521	+	(BARI, BIRM, BRUX, CERN, EPOL, RHEL+)
KITAGAKI	80	PRL 45 955	+Tanaka, Yuta+	(TOHOK, IIT, UMD, STON, TUFTS)
CNOPS	79	PRL 42 197	+Connolly, Kahn, Kirk, Murtagh, Palmer+	(BNL)

$\boxed{\Lambda_c(2625)^+}$

$I = 0$ Status: ∗∗∗

This could be a $\Sigma_c(2625)^+$ instead of a $\Lambda_c(2625)^+$, but theoretical estimates of the masses of excited charmed baryons are much more in accord with it being a Λ_c^+.

$\Lambda_c(2625)^+$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
2625.6±0.8 OUR FIT					
2626.6±0.5±1.5	42	[1] ALBRECHT	93F	ARG	$e^+e^- \approx \Upsilon(4S)$

[1] ALBRECHT 93F claims a signal of 42.4 ± 8.8 events.

$m_{\Lambda_c(2625)^+} - m_{\Lambda_c^+}$

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
340.6±0.6 OUR FIT					
340.4±0.6±0.3	40	[2] FRABETTI	94	E687	γBe, $\overline{E}_\gamma$ = 220 GeV

[2] FRABETTI 94 claims a signal of 39.7 ± 8.7 events.

$\Lambda_c(2625)^+$ WIDTH

VALUE (MeV)	CL%	DOCUMENT ID		TECN	COMMENT
<3.2	90	ALBRECHT	93F	ARG	$e^+e^- \approx \Upsilon(4S)$

$\Lambda_c(2625)^+$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\Lambda_c^+\pi^+\pi^-$	seen
Γ_2	$\Sigma_c(2455)^{++}\pi^- + \Sigma_c(2455)^0\pi^+$	seen
Γ_3	$\Lambda_c^+\pi^+\pi^-$ nonresonant	seen