



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

Neither of J or P has actually been measured.

Ξ_c^+ MASS

The fit uses the Ξ_c^+ and Ξ_c^0 mass and mass-difference measurements.

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2467.71 ± 0.23 OUR FIT		Error includes scale factor of 1.3.		
2467.95 ± 0.19 OUR AVERAGE				
2467.97 ± 0.14 ± 0.17	3.8k	1 AAIJ	14Z LHCb	$p\bar{p}$ at 7, 8 TeV
2468.00 ± 0.18 ± 0.51	5.1k	AALTONEN	14B CDF	$p\bar{p}$ at 1.96 TeV
2468.1 ± 0.4 + 0.2 - 1.4	4.9k	2 LESIAK	05 BELL	e^+e^- , $\gamma(4S)$
2465.8 ± 1.9 ± 2.5	90	FRABETTI	98 E687	γ Be, $\bar{E}_\gamma = 220$ GeV
2467.0 ± 1.6 ± 2.0	147	EDWARDS	96 CLE2	$e^+e^- \approx \gamma(4S)$
2465.1 ± 3.6 ± 1.9	30	ALBRECHT	90F ARG	e^+e^- at $\gamma(4S)$
2467 ± 3 ± 4	23	ALAM	89 CLEO	e^+e^- 10.6 GeV
2466.5 ± 2.7 ± 1.2	5	BARLAG	89C ACCM	π^- Cu 230 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2464.4 ± 2.0 ± 1.4	30	FRABETTI	93B E687	See FRABETTI 98
2459 ± 5 ± 30	56	3 COTEUS	87 SPEC	$nA \simeq 600$ GeV
2460 ± 25	82	BIAGI	83 SPEC	Σ^- Be 135 GeV

¹AAIJ 14Z systematic error includes in quadrature the 0.14 MeV uncertainty from the $m(\Lambda_c^+)$ mass value.

²The systematic error was (wrongly) given the other way round in LESIAK 05; see the erratum.

³Although COTEUS 87 claims to agree well with BIAGI 83 on the mass and width, there appears to be a discrepancy between the two experiments. BIAGI 83 sees a single peak (stated significance about 6 standard deviations) in the $\Lambda K^- \pi^+ \pi^+$ mass spectrum. COTEUS 87 sees two peaks in the same spectrum, one at the Ξ_c^+ mass, the other 75

MeV lower. The latter is attributed to $\Xi_c^+ \rightarrow \Sigma^0 K^- \pi^+ \pi^+ \rightarrow (\Lambda \gamma) K^- \pi^+ \pi^+$, with the γ unseen. The combined significance of the double peak is stated to be 5.5 standard deviations. But the absence of any trace of a lower peak in BIAGI 83 seems to us to throw into question the interpretation of the lower peak of COTEUS 87.

Ξ_c^+ MEAN LIFE

VALUE (10^{-15} s)	EVTS	DOCUMENT ID	TECN	COMMENT
453 ± 5 OUR AVERAGE				
454 ± 5 ± 2	56k	1 AAIJ	19AG LHCb	$\Xi_c^+ \rightarrow p K^- \pi^+$
503 ± 47 ± 18	250	MAHMOOD	02 CLE2	$e^+e^- \approx \gamma(4S)$
439 ± 22 ± 9	532	LINK	01D FOCS	γ nucleus, $\bar{E}_\gamma \approx 180$ GeV
$340^{+70}_{-50} \pm 20$	56	FRABETTI	98 E687	γ Be, $\bar{E}_\gamma = 220$ GeV
$400^{+180}_{-120} \pm 100$	102	COTEUS	87 SPEC	$nA \simeq 600$ GeV

$480^{+210+200}_{-150-100}$ 53 BIAGI 85c SPEC Σ^- Be 135 GeV

• • • We do not use the following data for averages, fits, limits, etc. • • •

$410^{+110}_{-80} \pm 20$ 30 FRABETTI 93B E687 See FRABETTI 98

200^{+110}_{-60} 6 BARLAG 89c ACCM $\pi^- (K^-)$ Cu 230 GeV

¹ AAIJ 19AG reports $[\Xi_c^+ \text{ MEAN LIFE}] / [D^\pm \text{ MEAN LIFE}] = 0.4392 \pm 0.0034 \pm 0.0028$

which we multiply by our best value $D^\pm \text{ MEAN LIFE} = (1.033 \pm 0.005) \times 10^{-12} \text{ s}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

Ξ_c^+ DECAY MODES

Branching fractions marked with a footnote, e.g. [a], have been corrected for decay modes not observed in the experiments. For example, the sub-mode fraction $\Xi_c^+ \rightarrow \Sigma^+ \bar{K}^*(892)^0$ seen in $\Xi_c^+ \rightarrow \Sigma^+ K^- \pi^+$ has been multiplied up to include $\bar{K}^*(892)^0 \rightarrow \bar{K}^0 \pi^0$ decays.

Mode	Fraction (Γ_i/Γ)	Scale factor/ Confidence level
Cabibbo-favored ($S = -2$) decays		
$\Gamma_1 p 2K_S^0$	$(2.5 \pm 1.3) \times 10^{-3}$	
$\Gamma_2 \Lambda \bar{K}^0 \pi^+$	—	
$\Gamma_3 \Sigma(1385)^+ \bar{K}^0$	[a] $(2.9 \pm 2.0) \%$	
$\Gamma_4 \Lambda K^- 2\pi^+$	$(9 \pm 4) \times 10^{-3}$	
$\Gamma_5 \Lambda \bar{K}^*(892)^0 \pi^+$	[a] $< 5 \times 10^{-3}$	CL=90%
$\Gamma_6 \Sigma(1385)^+ K^- \pi^+$	[a] $< 6 \times 10^{-3}$	CL=90%
$\Gamma_7 \Sigma^+ K^- \pi^+$	$(2.7 \pm 1.2) \%$	
$\Gamma_8 \Sigma^+ \bar{K}^*(892)^0$	[a] $(2.3 \pm 1.1) \%$	
$\Gamma_9 \Sigma^0 K^- 2\pi^+$	$(8 \pm 5) \times 10^{-3}$	
$\Gamma_{10} \Xi^0 \pi^+$	$(1.6 \pm 0.8) \%$	
$\Gamma_{11} \Xi^- 2\pi^+$	$(2.9 \pm 1.3) \%$	
$\Gamma_{12} \Xi(1530)^0 \pi^+$	[a] $< 2.9 \times 10^{-3}$	CL=90%
$\Gamma_{13} \Xi(1620)^0 \pi^+$	seen	
$\Gamma_{14} \Xi(1690)^0 \pi^+$	seen	
$\Gamma_{15} \Xi^0 \pi^+ \pi^0$	$(6.7 \pm 3.5) \%$	
$\Gamma_{16} \Xi^0 \pi^- 2\pi^+$	$(5.0 \pm 2.6) \%$	
$\Gamma_{17} \Xi^0 e^+ \nu_e$	$(7 \pm 4) \%$	
$\Gamma_{18} \Omega^- K^+ \pi^+$	$(2.0 \pm 1.5) \times 10^{-3}$	
Cabibbo-suppressed decays		
$\Gamma_{19} p K^- \pi^+$	$(6.2 \pm 3.0) \times 10^{-3}$	S=1.5
$\Gamma_{20} p \bar{K}^*(892)^0$	[a] $(3.3 \pm 1.7) \times 10^{-3}$	
$\Gamma_{21} \Sigma^+ \pi^+ \pi^-$	$(1.4 \pm 0.8) \%$	
$\Gamma_{22} \Sigma^- 2\pi^+$	$(5.1 \pm 3.4) \times 10^{-3}$	

Γ_{23}	$\Sigma^+ K^+ K^-$	$(4.3 \pm 2.5) \times 10^{-3}$	
Γ_{24}	$\Sigma^+ \phi$	$[a] < 3.2 \times 10^{-3}$	CL=90%
Γ_{25}	$\Xi(1690)^0 K^+, \Xi^0 \rightarrow \Sigma^+ K^-$	$< 1.3 \times 10^{-3}$	CL=90%
Γ_{26}	$p\phi(1020)$	$(1.2 \pm 0.6) \times 10^{-4}$	

[a] This branching fraction includes all the decay modes of the final-state resonance.

Ξ_c^+ BRANCHING RATIOS

Cabibbo-favored ($S = -2$) decays

$\Gamma(p2K_S^0)/\Gamma(\Xi^- 2\pi^+)$

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	Γ_1/Γ_{11}
0.087 ± 0.016 ± 0.014	168 ± 27	LESIAK	05	BELL $e^+ e^-$, $\gamma(4S)$	

$\Gamma(\Sigma(1385)^+ \bar{K}^0)/\Gamma(\Xi^- 2\pi^+)$

Unseen decay modes of the $\Sigma(1385)^+$ are included.

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	Γ_3/Γ_{11}
1.00 ± 0.49 ± 0.24	20	LINK	03E	FOCS γ nucleus, $\bar{E}_\gamma \approx 180$ GeV	

$\Gamma(\Lambda K^- 2\pi^+)/\Gamma(\Xi^- 2\pi^+)$

Γ_4/Γ_{11}

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
0.323 ± 0.033 OUR AVERAGE				

0.32 ± 0.03 ± 0.02	1177 ± 55	LESIAK	05	BELL $e^+ e^-$, $\gamma(4S)$
0.28 ± 0.06 ± 0.06	58	LINK	03E	FOCS γ nucleus, $\bar{E}_\gamma \approx 180$ GeV
0.58 ± 0.16 ± 0.07	61	BERGFELD	96	CLE2 $e^+ e^- \approx \gamma(4S)$

$\Gamma(\Lambda \bar{K}^*(892)^0 \pi^+)/\Gamma(\Lambda K^- 2\pi^+)$

Γ_5/Γ_4

Unseen decay modes of the $\bar{K}^*(892)^0$ are included.

VALUE	CL%	DOCUMENT ID	TECN	COMMENT	Γ_5/Γ_4
<0.5	90	BERGFELD	96	CLE2 $e^+ e^- \approx \gamma(4S)$	

$\Gamma(\Sigma(1385)^+ K^- \pi^+)/\Gamma(\Lambda K^- 2\pi^+)$

Γ_6/Γ_4

Unseen decay modes of the $\Sigma(1385)^+$ are included.

VALUE	CL%	DOCUMENT ID	TECN	COMMENT	Γ_6/Γ_4
<0.7	90	BERGFELD	96	CLE2 $e^+ e^- \approx \gamma(4S)$	

$\Gamma(\Sigma^+ K^- \pi^+)/\Gamma(\Xi^- 2\pi^+)$

Γ_7/Γ_{11}

VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	Γ_7/Γ_{11}
0.94 ± 0.10 OUR AVERAGE					

0.91 ± 0.11 ± 0.04	251	LINK	03E	FOCS γ nucleus, $\bar{E}_\gamma \approx 180$ GeV
0.92 ± 0.20 ± 0.07		¹ JUN	00	SELX Σ^- nucleus, 600 GeV
1.18 ± 0.26 ± 0.17	119	BERGFELD	96	CLE2 $e^+ e^- \approx \gamma(4S)$

¹ This JUN 00 result is redundant with other results given below.

$\Gamma(\Sigma^+ \bar{K}^*(892)^0)/\Gamma(\Xi^- 2\pi^+)$ Γ_8/Γ_{11} Unseen decay modes of the $\bar{K}^*(892)^0$ are included.

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.81±0.15 OUR AVERAGE				
0.78±0.16±0.06	119	LINK	03E	FOCS γ nucleus, $\bar{E}_\gamma \approx 180$ GeV
0.92±0.27±0.14	61	BERGFELD	96	CLE2 $e^+ e^- \approx \Upsilon(4S)$

 $\Gamma(\Sigma^0 K^- 2\pi^+)/\Gamma(\Lambda K^- 2\pi^+)$ Γ_9/Γ_4

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.84±0.36				
	47	¹ COTEUS	87	SPEC $nA \simeq 600$ GeV

¹ See, however, the note on the COTEUS 87 Ξ_c^+ mass measurement.

 $\Gamma(\Xi^0 \pi^+)/\Gamma(\Xi^- 2\pi^+)$ Γ_{10}/Γ_{11}

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.55±0.13±0.09				
	39	EDWARDS	96	CLE2 $e^+ e^- \approx \Upsilon(4S)$

 $\Gamma(\Xi^- 2\pi^+)/\Gamma_{\text{total}}$ Γ_{11}/Γ

<u>VALUE (units 10^{-2})</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2.86±1.21±0.38				
	24	¹ LI	19C	BELL $e^+ e^- \approx \Upsilon(4S)$

• • • We do not use the following data for averages, fits, limits, etc. • • •

seen	131	BERGFELD	96	CLE2 $e^+ e^- \approx \Upsilon(4S)$
seen	160	AVERY	95	CLE2 $e^+ e^- \approx \Upsilon(4S)$
seen	30	FRABETTI	93B	E687 γ Be, $\bar{E}_\gamma = 220$ GeV
seen	30	ALBRECHT	90F	ARG $e^+ e^-$ at $\Upsilon(4S)$
seen	23	ALAM	89	CLEO $e^+ e^-$ 10.6 GeV

¹ LI 19C report a significance of 6.8σ for the observation of this decay mode, observed in Ξ_c^+ from $\bar{B}^0 \rightarrow \bar{\Lambda}_c^- \Xi_c^+$.

 $\Gamma(\Xi(1530)^0 \pi^+)/\Gamma(\Xi^- 2\pi^+)$ Γ_{12}/Γ_{11} Unseen decay modes of the $\Xi(1530)^0$ are included.

<u>VALUE</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<0.1				
	90	LINK	03E	FOCS γ nucleus, $\bar{E}_\gamma \approx 180$ GeV

• • • We do not use the following data for averages, fits, limits, etc. • • •

<0.2	90	BERGFELD	96	CLE2 $e^+ e^- \approx \Upsilon(4S)$
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 $\Gamma(\Xi(1620)^0 \pi^+)/\Gamma_{\text{total}}$ Γ_{13}/Γ

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
seen			
	SUMIHAMA	19	BELL $e^+ e^-$ mostly at $\Upsilon(4S)$

 $\Gamma(\Xi(1690)^0 \pi^+)/\Gamma_{\text{total}}$ Γ_{14}/Γ

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
seen			
	SUMIHAMA	19	BELL $e^+ e^-$ mostly at $\Upsilon(4S)$

 $\Gamma(\Xi^0 \pi^+ \pi^0)/\Gamma(\Xi^- 2\pi^+)$ Γ_{15}/Γ_{11}

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2.34±0.57±0.37				
	81	EDWARDS	96	CLE2 $e^+ e^- \approx \Upsilon(4S)$

$\Gamma(\Xi(1530)^0\pi^+)/\Gamma(\Xi^0\pi^+\pi^0)$ Γ_{12}/Γ_{15}

<u>VALUE</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<0.3	90	EDWARDS 96	CLE2	$e^+e^- \approx \gamma(4S)$

 $\Gamma(\Xi^0\pi^-2\pi^+)/\Gamma(\Xi^-2\pi^+)$ Γ_{16}/Γ_{11}

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
1.74±0.42±0.27	57	EDWARDS 96	CLE2	$e^+e^- \approx \gamma(4S)$

 $\Gamma(\Xi^0 e^+ \nu_e)/\Gamma(\Xi^- 2\pi^+)$ Γ_{17}/Γ_{11}

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
2.3±0.6±0.3	41	ALEXANDER 95B	CLE2	$e^+e^- \approx \gamma(4S)$

 $\Gamma(\Omega^- K^+ \pi^+)/\Gamma(\Xi^- 2\pi^+)$ Γ_{18}/Γ_{11}

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.07±0.03±0.03	14	LINK 03E	FOCS	< 0.12, 90% CL

 $\Gamma(pK^-\pi^+)/\Gamma_{\text{total}}$ Γ_{19}/Γ

<u>VALUE (units 10^{-3})</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
6.2 ±3.0 OUR AVERAGE		Error		includes scale factor of 1.5.
11.35±0.02±3.87	1.6M	¹ AAIJ	20AH LHCb	$p p$ at 13 TeV
4.5 ±2.1 ±0.7	24	² LI	19C BELL	$e^+e^- \approx \gamma(4S)$

¹AAIJ 20AH extracts $B(\Xi_c^+ \rightarrow pK^-\pi^+)$ assuming production fraction ratios $f_{\Xi_c^0}/f_{\Lambda_c^+} = (9.7 \pm 0.9 \pm 3.1) \times 10^{-2}$ (from AAIJ 19AB plus heavy quark symmetry arguments) as well as $f_{\Xi_c^0}/f_{\Xi_c^+} = 1.00 \pm 0.01$, and uses the input $B(\Lambda_c^+ \rightarrow pK^-\pi^+) = (6.23 \pm 0.33) \times 10^{-2}$. Its correlation with $B(\Xi_c^0 \rightarrow \Lambda_c^+\pi^-)$, as measured in AAIJ 20AH, is 0.414.

²LI 19C report a significance of 4.4σ for the observation of this decay mode, observed in Ξ_c^+ from $\bar{B}^0 \rightarrow \bar{\Lambda}_c^-\Xi_c^+$.

Cabibbo-suppressed decays

 $\Gamma(pK^-\pi^+)/\Gamma(\Xi^- 2\pi^+)$ Γ_{19}/Γ_{11}

<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.21 ±0.04 OUR AVERAGE				
0.194±0.054	47 ± 11	VAZQUEZ-JA...08	SELX	Σ^- nucleus, 600 GeV
0.234±0.047±0.022	202	LINK 01B	FOCS	γ nucleus
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.20 ±0.04 ±0.02	76	JUN 00	SELX	See VAZQUEZ-JAUREGUI 08

 $\Gamma(p\bar{K}^*(892)^0)/\Gamma(pK^-\pi^+)$ Γ_{20}/Γ_{19}

Unseen decay modes of the $\bar{K}^*(892)^0$ are included.

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.54±0.09±0.05	LINK 01B	FOCS	γ nucleus

$\Gamma(\Sigma^+ \pi^+ \pi^-)/\Gamma(\Xi^- 2\pi^+)$		Γ_{21}/Γ_{11}		
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
0.48±0.20	21 ± 8	VAZQUEZ-JA...08	SELX	Σ^- nucleus, 600 GeV
$\Gamma(\Sigma^- 2\pi^+)/\Gamma(\Xi^- 2\pi^+)$		Γ_{22}/Γ_{11}		
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
0.18±0.09	10 ± 4	VAZQUEZ-JA...08	SELX	Σ^- nucleus, 600 GeV
$\Gamma(\Sigma^+ K^+ K^-)/\Gamma(\Sigma^+ K^- \pi^+)$		Γ_{23}/Γ_7		
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
0.16±0.06±0.01	17	LINK	03E	FOCS γ nucleus, $\bar{E}_\gamma \approx 180$ GeV
$\Gamma(\Sigma^+ \phi)/\Gamma(\Sigma^+ K^- \pi^+)$		Γ_{24}/Γ_7		
Unseen decay modes of the ϕ are included.				
VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<0.12	90	LINK	03E	FOCS γ nucleus, $\bar{E}_\gamma \approx 180$ GeV
$\Gamma(p\phi(1020))/\Gamma(pK^-\pi^+)$		Γ_{26}/Γ_{19}		
VALUE (units 10^{-3})	EVTS	DOCUMENT ID	TECN	COMMENT
19.8±0.7±0.9±0.2	3.4k	1 AAIJ	19I	LHCb $p p$ at 8 TeV

¹ The last uncertainty is due to the uncertainty in the $\phi \rightarrow K^+ K^-$ branching fraction.

$\Gamma(\Xi(1690)^0 K^+ \times B(\Xi(1690)^0 \rightarrow \Sigma^+ K^-))/\Gamma(\Sigma^+ K^- \pi^+)$		Γ_{25}/Γ_7		
VALUE	CL%	DOCUMENT ID	TECN	COMMENT
<0.05	90	LINK	03E	FOCS γ nucleus, $\bar{E}_\gamma \approx 180$ GeV

Ξ_c^+ REFERENCES

AAIJ	20AH	PR D102 071101	R. Aaij <i>et al.</i>	(LHCb Collab.)
AAIJ	19AB	PR D99 052006	R. Aaij <i>et al.</i>	(LHCb Collab.)
AAIJ	19AG	PR D100 032001	R. Aaij <i>et al.</i>	(LHCb Collab.)
AAIJ	19I	JHEP 1904 084	R. Aaij <i>et al.</i>	(LHCb Collab.)
LI	19C	PR D100 031101	Y.B. Li <i>et al.</i>	(BELLE Collab.)
SUMIHAMA	19	PRL 122 072501	M. Sumihama <i>et al.</i>	(BELLE Collab.)
AAIJ	14Z	PRL 113 032001	R. Aaij <i>et al.</i>	(LHCb Collab.)
AALTONEN	14B	PR D89 072014	T. Aaltonen <i>et al.</i>	(CDF Collab.)
VAZQUEZ-JA...	08	PL B666 299	E. Vazquez-Jauregui <i>et al.</i>	(SELEX Collab.)
LESIAK	05	PL B605 237	T. Lesiak <i>et al.</i>	(BELLE Collab.)
Also		PL B617 198 (errat.)	T. Lesiak <i>et al.</i>	(BELLE Collab.)
LINK	03E	PL B571 139	J.M. Link <i>et al.</i>	(FNAL FOCUS Collab.)
MAHMOOD	02	PR D65 031102	A.H. Mahmood <i>et al.</i>	(CLEO Collab.)
LINK	01B	PL B512 277	J.M. Link <i>et al.</i>	(FNAL FOCUS Collab.)
LINK	01D	PL B523 53	J.M. Link <i>et al.</i>	(FNAL FOCUS Collab.)
JUN	00	PRL 84 1857	S.Y. Jun <i>et al.</i>	(FNAL SELEX Collab.)
FRAEBETTI	98	PL B427 211	P.L. Frabetti <i>et al.</i>	(FNAL E687 Collab.)
BERGFELD	96	PL B365 431	T. Bergfeld <i>et al.</i>	(CLEO Collab.)
EDWARDS	96	PL B373 261	K.W. Edwards <i>et al.</i>	(CLEO Collab.)
ALEXANDER	95B	PRL 74 3113	J. Alexander <i>et al.</i>	(CLEO Collab.)
Also		PRL 75 4155 (errat.)	J. Alexander <i>et al.</i>	(CLEO Collab.)
EVERY	95	PRL 75 4364	P. Avery <i>et al.</i>	(CLEO Collab.)
FRAEBETTI	93B	PRL 70 1381	P.L. Frabetti <i>et al.</i>	(FNAL E687 Collab.)
ALBRECHT	90F	PL B247 121	H. Albrecht <i>et al.</i>	(ARGUS Collab.)
ALAM	89	PL B226 401	M.S. Alam <i>et al.</i>	(CLEO Collab.)
BARLAG	89C	PL B233 522	S. Barlag <i>et al.</i>	(ACCMOR Collab.)
COTEUS	87	PRL 59 1530	P. Coteus <i>et al.</i>	(FNAL E400 Collab.)
BIAGI	85C	PL 150B 230	S.F. Biagi <i>et al.</i>	(CERN WA62 Collab.)
BIAGI	83	PL 122B 455	S.F. Biagi <i>et al.</i>	(CERN WA62 Collab.)