CHARMED MESONS
($C = \pm1$)

$D^+ = c\overline{d}$, $D^0 = c\overline{u}$, $\overline{D}^0 = \overline{c}\,u$, $D^- = \overline{c}\,d$, similarly for D^*'s

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$D^*(2007)^0$

$I(J^P) = \frac{1}{2}(1^-)$
I, J, P need confirmation.

J consistent with 1, value 0 ruled out (NGUYEN 77).

$D^*(2007)^0$ MASS

The fit includes $D^\pm$, D^0, $D_s^\pm$, $D^{*\pm}$, D^{*0}, and $D_s^{*\pm}$ mass and mass difference measurements.

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
2006.7±0.5 OUR FIT Error includes scale factor of 1.1.			
• • • We do not use the following data for averages, fits, limits, etc. • • •			
2006 ±1.5	[1] GOLDHABER 77	MRK1	e^+e^-

[1] From simultaneous fit to $D^*(2010)^+$, $D^*(2007)^0$, D^+, and D^0.

$m_{D^*(2007)^0} - m_{D^0}$

The fit includes $D^\pm$, D^0, $D_s^\pm$, $D^{*\pm}$, D^{*0}, and $D_s^{*\pm}$ mass and mass difference measurements.

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
142.12±0.07 OUR FIT				
142.12±0.05±0.05	1176±50	BORTOLETTO 92B	CLE2	$e^+e^- \to$ hadrons
• • • We do not use the following data for averages, fits, limits, etc. • • •				
142.2 ±2.0		SADROZINSKI 80	CBAL	$D^{*0} \to D^0\pi^0$
142.7 ±1.7		[2] GOLDHABER 77	MRK1	e^+e^-

[2] From simultaneous fit to $D^*(2010)^+$, $D^*(2007)^0$, D^+, and D^0.

$D^*(2007)^0$ WIDTH

VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
<2.1	90	[3] ABACHI 88B	HRS	$D^{*0} \to D^+\pi^-$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<5		GOLDHABER 76B	MRK1	$e^+e^- \to D^*D^*$

[3] Assuming $m_{D^{*0}} = 2007.2 \pm 2.1$ MeV/c^2.

$D^*(2007)^0$ DECAY MODES

$\overline{D}^*(2007)^0$ modes are charge conjugates of modes below.

	Mode	Fraction (Γ_i/Γ)
Γ_1	$D^0\pi^0$	(64±4) %
Γ_2	$D^0\gamma$	(36±4) %

CONSTRAINED FIT INFORMATION

An overall fit to a branching ratio uses 2 measurements and one constraint to determine 2 parameters. The overall fit has a $\chi^2 =$ 0.0 for 1 degrees of freedom.

The following *off-diagonal* array elements are the correlation coefficients $\left\langle \delta x_i \delta x_j \right\rangle / (\delta x_i \cdot \delta x_j)$, in percent, from the fit to the branching fractions, $x_i \equiv \Gamma_i/\Gamma_{\rm total}$. The fit constrains the x_i whose labels appear in this array to sum to one.

x_2	-100
	x_1

$D^*(2007)^0$ BRANCHING RATIOS

$\Gamma(D^0\pi^0)/\Gamma_{\rm total}$ — Γ_1/Γ

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.64 ±0.04 OUR FIT					
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.636±0.023±0.033	1097±59	[4] BUTLER	92	CLE2	$e^+e^- \to$ hadrons

$\Gamma(D^0\gamma)/\Gamma_{\rm total}$ — Γ_2/Γ

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.36 ±0.04 OUR FIT					
0.36 ±0.04 OUR AVERAGE					
0.364±0.023±0.033	621±52	[4] BUTLER	92	CLE2	$e^+e^- \to$ hadrons
0.37 ±0.08 ±0.08		ADLER	88D	MRK3	e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.47 ±0.23		LOW	87	HRS	29 GeV e^+e^-
0.53 ±0.13		BARTEL	85G	JADE	e^+e^-, hadrons
0.47 ±0.12		COLES	82	MRK2	e^+e^-
0.45 ±0.15		GOLDHABER	77	MRK1	e^+e^-

[4] The BUTLER 92 branching ratios are not independent, they have been constrained by the authors to sum to 100%.

$D^*(2007)^0$ REFERENCES

BORTOLETTO	92B	PRL 69 2046	+Brown, Dominick+	(CLEO Collab.)
BUTLER	92	PRL 69 2041	+Fu, Kalbfleish+	(CLEO Collab.)
ABACHI	88B	PL B212 533	+Akerlof+	(ANL, IND, MICH, PURD, LBL)
ADLER	88D	PL B208 152	+Becker+	(Mark III Collab.)
LOW	87	PL B183 232	+Abachi, Akerlof, Baringer+	(HRS Collab.)
BARTEL	85G	PL 161B 197	+Dietrich, Ambrus+	(JADE Collab.)
COLES	82	PR D26 2190	+Abrams, Blocker, Blondel+	(LBL, SLAC)
SADROZINSKI	80	Madison Conf. 681	+	(PRIN, CIT, HARV, SLAC, STAN)
GOLDHABER	77	PL 69B 503	+Wiss, Abrams, Alam+	(LBL, SLAC)
NGUYEN	77	PRL 39 262	+Wiss, Abrams, Alam, Boyarski+	(LBL, SLAC) J
GOLDHABER	76B	SLAC Conf. 379		(LBL, SLAC)

Available as LBL-5534.

OTHER RELATED PAPERS

KAMAL	92	PL B284 421	+Xu	(ALBE)
TRILLING	81	PRPL 75 57		(LBL, UCB)
FELDMAN	77C	Banff Sum. Inst. 75		(SLAC)
GOLDHABER	76	PRL 37 255	+Pierre, Abrams, Alam+	(LBL, SLAC)

$D^*(2010)^\pm$

$I(J^P) = \frac{1}{2}(1^-)$
I, J, P need confirmation.

$D^*(2010)^\pm$ MASS

The fit includes $D^\pm$, D^0, $D_s^\pm$, $D^{*\pm}$, D^{*0}, and $D_s^{*\pm}$ mass and mass difference measurements.

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2010.0±0.5 OUR FIT Error includes scale factor of 1.1.					
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2008 ±3	[1] GOLDHABER	77	MRK1	±	e^+e^-
2008.6±1.0	[2] PERUZZI	77	MRK1	±	e^+e^-

[1] From simultaneous fit to $D^*(2010)^+$, $D^*(2007)^0$, D^+, and D^0; not independent of FELDMAN 77B mass difference below.
[2] PERUZZI 77 mass not independent of FELDMAN 77B mass difference below and PERUZZI 77 D^0 mass value.

$m_{D^*(2010)^+} - m_{D^+}$

The fit includes $D^\pm$, D^0, $D_s^\pm$, $D^{*\pm}$, D^{*0}, and $D_s^{*\pm}$ mass and mass difference measurements.

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
140.64±0.09 OUR FIT					
140.64±0.08±0.06	620±42	BORTOLETTO	92B	CLE2	$e^+e^- \rightarrow$ hadrons

$m_{D^*(2010)^+} - m_{D^0}$

The fit includes $D^\pm$, D^0, $D_s^\pm$, $D^{*\pm}$, D^{*0}, and $D_s^{*\pm}$ mass and mass difference measurements.

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
145.42±0.05 OUR FIT					
145.42±0.04 OUR AVERAGE					
145.39±0.06±0.03		BARLAG	92B	ACCM	π^- 230 GeV
145.40±0.05±0.10		ABACHI	88B	HRS	$D^{*\pm} \rightarrow D^0\pi^\pm$
145.46±0.07±0.03		ALBRECHT	85F	ARG	$D^{*\pm} \rightarrow D^0\pi^+$
145.8 ±1.5	16	AHLEN	83	HRS	$D^{*+} \rightarrow D^0\pi^+$
145.1 ±1.8	12	BAILEY	83	SPEC	$D^{*\pm} \rightarrow D^0\pi^\pm$
145.5 ±0.3	28	BAILEY	83	SPEC	$D^{*\pm} \rightarrow D^0\pi^\pm$
145.1 ±0.5	14	BAILEY	83	SPEC	$D^{*\pm} \rightarrow D^0\pi^\pm$
145.5 ±0.5	14	YELTON	82	MRK2	29 $e^+e^- \rightarrow K^-\pi^+$
145.5 ±0.3	60	FITCH	81	SPEC	π^- A
145.2 ±0.6	2	BLIETSCHAU	79	BEBC	νp
145.3 ±0.5	30	FELDMAN	77B	MRK1	$D^{*+} \rightarrow D^0\pi^+$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
145.5 ±0.2	115	[3] ALEXANDER	91B	OPAL	$D^{*\pm} \rightarrow D^0\pi^\pm$
145.30±0.06		[3] DECAMP	91J	ALEP	$D^{*\pm} \rightarrow D^0\pi^\pm$
~ 145.5		AVERY	80	SPEC	γA

[3] Systematic error not evaluated.

$m_{D^*(2010)^+} - m_{D^*(2007)^0}$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2.6±1.8	[4] PERUZZI	77	MRK1	e^+e^-

[4] Not independent of FELDMAN 77B mass difference above, PERUZZI 77 D^0 mass, and GOLDHABER 77 $D^*(2007)^0$ mass.

$D^*(2010)^{\pm}$ WIDTH

VALUE (MeV)	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<0.131	90	110	BARLAG	92B	ACCM	π^- 230 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •						
<1.1	90		ABACHI	88B	HRS	$D^{*\pm} \to D^0\pi^\pm$
<2.2			YELTON	82	MRK2	$e^+e^- \to K^-\pi^+\pi^-$
<2.0	90	30	FELDMAN	77B	MRK1	$D^{*+} \to D^0\pi^+$

$D^*(2010)^{\pm}$ DECAY MODES

$D^*(2010)^-$ modes are charge conjugates of the modes below.

	Mode	Fraction (Γ_i/Γ)
Γ_1	$D^0\pi^+$	(68.1 ± 1.6) %
Γ_2	$D^+\pi^0$	(30.8 ± 2.7) %
Γ_3	$D^+\gamma$	$(\ 1.1^{+2.1}_{-0.7})$ %

CONSTRAINED FIT INFORMATION

An overall fit to 2 branching ratios uses 2 measurements and one constraint to determine 3 parameters. The overall fit has a $\chi^2 =$ 0.0 for 0 degrees of freedom.

The following *off-diagonal* array elements are the correlation coefficients $\left\langle\delta x_i\delta x_j\right\rangle/(\delta x_i\cdot\delta x_j)$, in percent, from the fit to the branching fractions, $x_i \equiv \Gamma_i/\Gamma_{\text{total}}$. The fit constrains the x_i whose labels appear in this array to sum to one.

x_2	−61	
x_3	0	−79
	x_1	x_2

$D^*(2010)^+$ BRANCHING RATIOS

$\Gamma(D^0\pi^+)/\Gamma_{\text{total}}$ — Γ_1/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.681±0.016 OUR FIT				
0.681±0.010±0.013	[7] BUTLER	92	CLE2	$e^+e^- \to$ hadrons
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.57 ±0.04 ±0.04	ADLER	88D	MRK3	e^+e^-
0.44 ±0.10	COLES	82	MRK2	e^+e^-
0.6 ±0.15	[5] GOLDHABER	77	MRK1	e^+e^-

[5] Assuming that isospin is conserved in the decay.

$\Gamma(D^+\pi^0)/\Gamma_{\text{total}}$ — Γ_2/Γ

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.308±0.027 OUR FIT					
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.308±0.004±0.008	410± 29	[7] BUTLER	92	CLE2	$e^+e^- \to$ hadrons
0.26 ±0.02 ±0.02		ADLER	88D	MRK3	e^+e^-
0.34 ±0.07		COLES	82	MRK2	e^+e^-

$\Gamma(D^+\gamma)/\Gamma_{\text{total}}$ — Γ_3/Γ

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
$0.011^{+0.021}_{-0.007}$ OUR FIT					
0.011±0.014±0.016	12 ± 23	[7] BUTLER	92	CLE2	$e^+e^- \to$ hadrons
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.17 ±0.05 ±0.05		ADLER	88D	MRK3	e^+e^-
0.22 ±0.12		[6] COLES	82	MRK2	e^+e^-

[6] Not independent of $\Gamma(D^0\pi^+)/\Gamma_{\text{total}}$ and $\Gamma(D^+\pi^0)/\Gamma_{\text{total}}$ measurement.

[7] The BUTLER 92 branching ratios are not independent, they have been constrained by the authors to sum to 100%.

$D^*(2010)^\pm$ REFERENCES

BARLAG	92B	PL B278 480	+Becker, Bozek+	(ACCMOR Collab.)
BORTOLETTO	92B	PRL 69 2046	+Brown, Dominick+	(CLEO Collab.)
BUTLER	92	PRL 69 2041	+Fu, Kalbfleish+	(CLEO Collab.)
ALEXANDER	91B	PL B262 341	+Allison, Allport, Anderson, Arcelli+	(OPAL Collab.)
DECAMP	91J	PL B266 218	+Deschizeaux, Goy, Lees+	(ALEPH Collab.)
ABACHI	88B	PL B212 533	+Akerlof+	(ANL, IND, MICH, PURD, LBL)
ADLER	88D	PL B208 152	+Becker+	(Mark III Collab.)
ALBRECHT	85F	PL 150B 235	+Binder, Harder, Philipp+	(ARGUS Collab.)
AHLEN	83	PRL 51 1147	+Akerlof+	(ANL, IND, LBL, MICH, PURD, SLAC)
BAILEY	83	PL 132B 230	+Bardsley+	(AMST, BRIS, CERN, CRAC, MPIM+)
COLES	82	PR D26 2190	+Abrams, Blocker, Blondel+	(LBL, SLAC)
YELTON	82	PRL 49 430	+Feldman, Goldhaber+	(SLAC, LBL, UCB, HARV)
FITCH	81	PRL 46 761	+Devaux, Cavaglia, May+	(PRIN, SACL, TORI, BNL)
AVERY	80	PRL 44 1309	+Wiss, Butler, Gladding+	(ILL, FNAL, COLU)
BLIETSCHAU	79	PL 86B 108	+	(AACH3, BONN, CERN, MPIM, OXF)
FELDMAN	77B	PRL 38 1313	+Peruzzi, Piccolo, Abrams, Alam+	(SLAC, LBL)
GOLDHABER	77	PL 69B 503	+Wiss, Abrams, Alam+	(LBL, SLAC)
PERUZZI	77	PRL 39 1301	+Piccolo, Feldman+	(SLAC, LBL, NWES, HAWA)

OTHER RELATED PAPERS

KAMAL	92	PL B284 421	+Xu	(ALBE)
ALTHOFF	83C	PL 126B 493	+Fischer, Burkhardt+	(TASSO Collab.)
BEBEK	82	PRL 49 610	+	(HARV, OSU, ROCH, RUTG, SYRA, VAND+)
TRILLING	81	PRPL 75 57		(LBL, UCB)
PERUZZI	76	PRL 37 569	+Piccolo, Feldman, Nguyen, Wiss+	(SLAC, LBL)

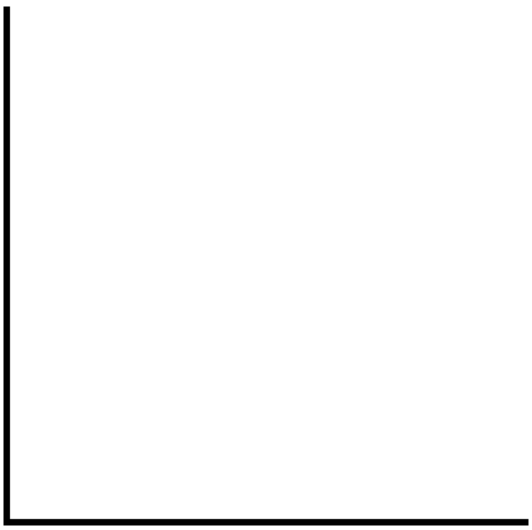
$D_1(2420)^0$

$I(J^P) = \frac{1}{2}(1^+)$
I, J, P need confirmation.

Seen in $D^*(2010)^+\pi^-$. $J^P = 1^+$ according to ALBRECHT 89B and ALBRECHT 89H.

$D_1(2420)^0$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*
2422.0±2.1 OUR AVERAGE	Error includes scale factor of 1.3. See the ideogram below.			
$2421\ ^{+1}_{-2}\ \pm 2$	286^{+51}_{-46}	AVERY	94C CLE2	$e^+e^- \rightarrow D^{*+}\pi^- X$
$2422\ \pm 2\ \pm 2$	51 ± 18	FRABETTI	94B E687	γBe $\rightarrow D^{*+}\pi^- X$
$2428\ \pm 3\ \pm 2$	279 ± 34	AVERY	90 CLEO	$e^+e^- \rightarrow D^{*+}\pi^- X$
$2414\ \pm 2\ \pm 5$	171 ± 22	ALBRECHT	89H ARG	$e^+e^- \rightarrow D^{*+}\pi^- X$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$2428\ \pm 8\ \pm 5$	171^{+43}_{-58}	ANJOS	89C TPS	$\gamma N \rightarrow D^{*+}\pi^- X$



$D_1(2420)^0$ mass (MeV)

*CITATION: L. Montanet et al., Physical Review D50, 1173 (1994) and 1995 off-year partial update for the 1996 edition (URL: http://pdg.lbl.gov/)

$D_1(2420)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
$18.9^{+4.6}_{-3.5}$ OUR AVERAGE					
$20\ ^{+6}_{-5}\ \pm 3$	286^{+51}_{-46}	AVERY	94C	CLE2	$e^+ e^- \rightarrow D^{*+} \pi^- X$
$15\ \pm 8\ \pm 4$	51 ± 18	FRABETTI	94B	E687	$\gamma \mathrm{Be} \rightarrow D^{*+} \pi^- X$
$23\ ^{+8}_{-6}\ ^{+10}_{-3}$	279 ± 34	AVERY	90	CLEO	$e^+ e^- \rightarrow D^{*+} \pi^- X$
$13\ \pm 6\ ^{+10}_{-5}$	171 ± 22	ALBRECHT	89H	ARG	$e^+ e^- \rightarrow D^{*+} \pi^- X$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$58\ \pm 14\ \pm 10$	171^{+43}_{-58}	ANJOS	89C	TPS	$\gamma N \rightarrow D^{*+} \pi^- X$

$D_1(2420)^0$ DECAY MODES

$\overline{D}_1(2420)^0$ modes are charge conjugates of modes below.

	Mode	Fraction (Γ_i/Γ)
Γ_1	$D^*(2010)^+ \pi^-$	seen
Γ_2	$D^+ \pi^-$	not seen

$D_1(2420)^0$ BRANCHING RATIOS

$\Gamma(D^*(2010)^+ \pi^-)/\Gamma_{\text{total}}$ Γ_1/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
seen	AVERY	90	CLEO	$e^+ e^- \rightarrow D^{*+} \pi^- X$
seen	ALBRECHT	89H	ARG	$e^+ e^- \rightarrow D^* \pi^- X$
seen	ANJOS	89C	TPS	$\gamma N \rightarrow D^{*+} \pi^- X$

$\Gamma(D^+ \pi^-)/\Gamma(D^*(2010)^+ \pi^-)$ Γ_2/Γ_1

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.24	90	AVERY	90	CLEO	$e^+ e^- \rightarrow D^+ \pi^- X$

$D_1(2420)^0$ REFERENCES

AVERY	94C	PL B331 236	+Freyberger, Rodriguez+	(CLEO Collab.)
FRABETTI	94B	PRL 72 324	+Cheung, Cumalat+	(FNAL E687 Collab.)
AVERY	90	PR D41 774	+Besson	(CLEO Collab.)
ALBRECHT	89B	PL B221 422	+Boeckmann+	(ARGUS Collab.)
ALBRECHT	89H	PL B232 398	+Glaser, Harder+	(ARGUS Collab.) JP
ANJOS	89C	PRL 62 1717	+Appel+	(FNAL E691 Collab.)

*CITATION: L. Montanet et al., Physical Review D50, 1173 (1994) and 1995 off-year partial update for the 1996 edition (URL: http://pdg.lbl.gov/)

$D_1(2420)^{\pm}$

$I(J^P) = \frac{1}{2}(?^?)$
I needs confirmation.

OMITTED FROM SUMMARY TABLE

Seen in $D^*(2007)^0\pi^+$. $J^P = 0^+$ ruled out.

$D_1(2420)^{\pm}$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
2427±5 OUR AVERAGE	Error includes scale factor of 2.0.				
2425±2±2	146	BERGFELD	94B	CLE2	$e^+e^- \rightarrow D^{*0}\pi^+X$
2443±7±5	190^{+77}_{-44}	ANJOS	89C	TPS	$\gamma N \rightarrow D^0\pi^+X^0$

$m_{D_1^*(2420)^{\pm}} - m_{D_1^*(2420)^0}$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
$\mathbf{4^{+2}_{-3}\pm3}$	BERGFELD	94B	CLE2	$e^+e^- \rightarrow$ hadrons

$D_1(2420)^{\pm}$ WIDTH

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
$\mathbf{28^{+\ 8}_{-\ 7}}$ **OUR AVERAGE**					
$26^{+\ 8}_{-\ 7}\pm2$	146	BERGFELD	94B	CLE2	$e^+e^- \rightarrow D^{*0}\pi^+X$
41±19±8	190^{+77}_{-44}	ANJOS	89C	TPS	$\gamma N \rightarrow D^0\pi^+X^0$

$D_1(2420)^{\pm}$ DECAY MODES

$D_1^*(2420)^-$ modes are charge conjugates of modes below.

	Mode	Fraction (Γ_i/Γ)
Γ_1	$D^*(2007)^0\pi^+$	seen
Γ_2	$D^0\pi^+$	

$D_1(2420)^{\pm}$ BRANCHING RATIOS

$\Gamma(D^*(2007)^0\pi^+)/\Gamma_{total}$ Γ_1/Γ

VALUE	*DOCUMENT ID*		*TECN*	*COMMENT*
seen	ANJOS	89C	TPS	$\gamma N \rightarrow D^0\pi^+X^0$

$\Gamma(D^0\pi^+)/\Gamma(D^*(2007)^0\pi^+)$ Γ_2/Γ_1

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.18	90	BERGFELD	94B	CLE2	$e^+e^- \rightarrow$ hadrons

$D_1(2420)^{\pm}$ REFERENCES

BERGFELD	94B	PL B340 194	+Eisenstein, Gollin+	(CLEO Collab.)
ANJOS	89C	PRL 62 1717	+Appel+	(FNAL E691 Collab.)

$D_2^*(2460)^0$

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

$J^P = 2^+$ assignment strongly favored (ALBRECHT 89B).

$D_2^*(2460)0$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
2458.9±2.0 OUR AVERAGE Error includes scale factor of 1.2.					
2465 ±3 ±3	486^{+103}_{-109}	AVERY	94C	CLE2	$e^+e^- \to D^+\pi^- X$
2453 ±3 ±2	128± 28	FRABETTI	94B	E687	γBe $\to D^+\pi^- X$
2461 ±3 ±1	440± 97	AVERY	90	CLEO	$e^+e^- \to D^{*+}\pi^- X$
2455 ±3 ±5	337± 100	ALBRECHT	89B	ARG	$e^+e^- \to D^+\pi^- X$
2459 ±3 ±2	153^{+42}_{-37}	ANJOS	89C	TPS	$\gamma N \to D^+\pi^- X$

$D_2^*(2460)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
23± 5 OUR AVERAGE					
$28^{+8}_{-7} \pm 6$	486^{+103}_{-109}	AVERY	94C	CLE2	$e^+e^- \to D^+\pi^- X$
25±10± 5	128± 28	FRABETTI	94B	E687	γBe $\to D^+\pi^- X$
$20^{+9}_{-12}{}^{+9}_{-10}$	440± 97	AVERY	90	CLEO	$e^+e^- \to D^{*+}\pi^- X$
$15^{+13}_{-10}{}^{+5}_{-10}$	337± 100	ALBRECHT	89B	ARG	$e^+e^- \to D^+\pi^- X$
20±10± 5	153^{+42}_{-37}	ANJOS	89C	TPS	$\gamma N \to D^+\pi^- X$

$D_2^*(2460)^0$ DECAY MODES

$\overline{D}_2^*(2460)^0$ modes are charge conjugates of modes below.

	Mode	Fraction (Γ_i/Γ)
Γ_1	$D^+\pi^-$	seen
Γ_2	$D^*(2010)^+\pi^-$	seen

$D_2^*(2460)^0$ BRANCHING RATIOS

$\Gamma(D^+\pi^-)/\Gamma_{total}$ — Γ_1/Γ

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
seen	337± 100	ALBRECHT	89B	ARG	$e^+e^- \to D^+\pi^- X$
seen		ANJOS	89C	TPS	$\gamma N \to D^+\pi^- X$

$\Gamma(D^*(2010)^+\pi^-)/\Gamma_{total}$ — Γ_2/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
seen	AVERY	90	CLEO	$e^+e^- \to D^{*+}\pi^- X$
seen	ALBRECHT	89H	ARG	$e^+e^- \to D^*\pi^- X$

$\Gamma(D^+\pi^-)/\Gamma(D^*(2010)^+\pi^-)$ — Γ_1/Γ_2

VALUE	DOCUMENT ID		TECN	COMMENT
2.3±0.6 OUR AVERAGE				
2.2±0.7±0.6	AVERY	94C	CLE2	$e^+e^- \to D^{*+}\pi^- X$
2.3±0.8	AVERY	90	CLEO	e^+e^-
3.0±1.1±1.5	ALBRECHT	89H	ARG	$e^+e^- \to D^*\pi^- X$

$D_2^*(2460)^0$ REFERENCES

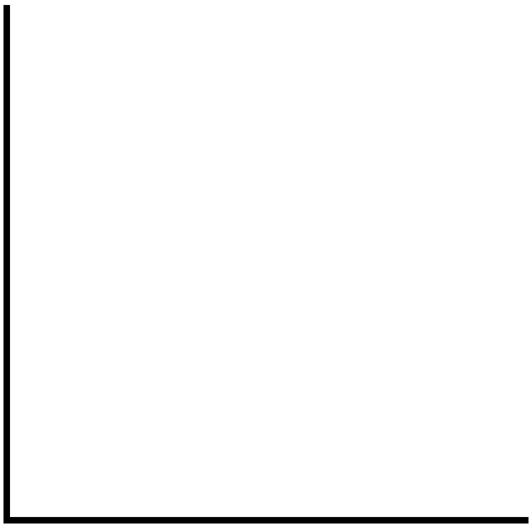
AVERY	94C	PL B331 236	+Freyberger, Rodriguez+	(CLEO Collab.)
FRABETTI	94B	PRL 72 324	+Cheung, Cumalat+	(FNAL E687 Collab.)
AVERY	90	PR D41 774	+Besson	(CLEO Collab.)
ALBRECHT	89B	PL B221 422	+Boeckmann+	(ARGUS Collab.) JP
ALBRECHT	89H	PL B232 398	+Glaser, Harder+	(ARGUS Collab.) JP
ANJOS	89C	PRL 62 1717	+Appel+	(FNAL E691 Collab.)

$D_2^*(2460)^{\pm}$

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

$D_2^*(2460)^{\pm}$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
2459±4 OUR AVERAGE	Error includes scale factor of 1.7. See the ideogram below.				
2463±3±3	310	BERGFELD	94B	CLE2	$e^+ e^- \rightarrow D^0 \pi^+ X$
2453±3±2	185±42	FRABETTI	94B	E687	$\gamma \text{Be} \rightarrow D^0 \pi^+ X$
2469±4±6		ALBRECHT	89F	ARG	$e^+ e^- \rightarrow D^0 \pi^+ X$



$D_2^*(2460)^{\pm}$ mass (MeV)

$m_{D_2^*(2460)^{\pm}} - m_{D_2^*(2460)^0}$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
0.9±3.3 OUR AVERAGE	Error includes scale factor of 1.1.			
− 2 ±4 ±4	BERGFELD	94B	CLE2	$e^+ e^- \rightarrow$ hadrons
0 ±4	FRABETTI	94B	E687	$\gamma \text{Be} \rightarrow D \pi X$
14 ±5 ±8	ALBRECHT	89F	ARG	$e^+ e^- \rightarrow D^0 \pi^+ X$

$D_2^*(2460)^{\pm}$ WIDTH

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
25^{+8}_{-7} OUR AVERAGE					
$27^{+11}_{-8}\pm5$	310	BERGFELD	94B	CLE2	$e^+ e^- \rightarrow D^0 \pi^+ X$
23± 9±5	185±42	FRABETTI	94B	E687	$\gamma \text{Be} \rightarrow D^0 \pi^+ X$

$D_2^*(2460)^{\pm}$ DECAY MODES

$\overline{D}_2^*(2460)^-$ modes are charge conjugates of modes below.

	Mode	Fraction (Γ_i/Γ)
Γ_1	$D^0 \pi^+$	seen
Γ_2	$D^{*0} \pi^+$	seen

*CITATION: L. Montanet et al., Physical Review D50, 1173 (1994) and 1995 off-year partial update for the 1996 edition (URL: http://pdg.lbl.gov/)

$D_2^*(2460)^{\pm}$ BRANCHING RATIOS

$\Gamma(D^0\pi^+)/\Gamma_{total}$ Γ_1/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
seen	ALBRECHT	89F	ARG	$e^+e^- \rightarrow D^0\pi^+X$

$\Gamma(D^0\pi^+)/\Gamma(D^{*0}\pi^+)$ Γ_1/Γ_2

VALUE	DOCUMENT ID		TECN	COMMENT
1.9±1.1±1.3	BERGFELD	94B	CLE2	$e^+e^- \rightarrow$ hadrons

$D_2^*(2460)^{\pm}$ REFERENCES

BERGFELD	94B	PL B340 194	+Eisenstein, Gollin+	(CLEO Collab.)
FRABETTI	94B	PRL 72 324	+Cheung, Cumalat+	(FNAL E687 Collab.)
ALBRECHT	89F	PL B231 208	+Glaeser+	(ARGUS Collab.)