$D^*(2010)^\pm$ 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±0.9) %
Γ_3	$D^+\gamma$	(1.1±2.1) %

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

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

VALUE	DOCUMENT ID		TECN	COMMENT
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.

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

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

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

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
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 $\Gamma(D^0\pi^+)/\Gamma_{total}$ and $\Gamma(D^+\pi^0)/\Gamma_{total}$ 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)

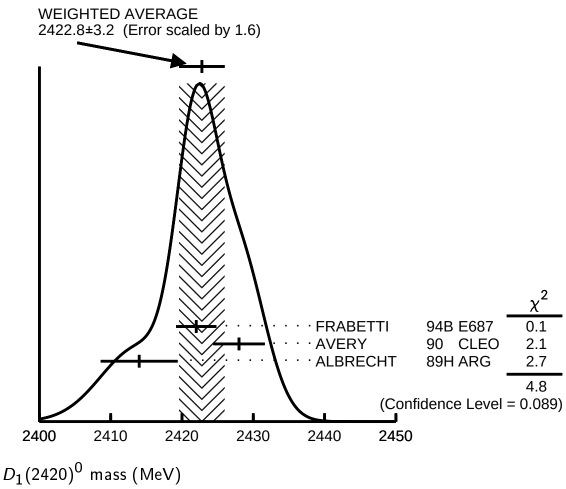
$D_1(2420)^0$

$I(J^P) = \frac{1}{2}(1^+)$
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
2422.8±3.2 OUR AVERAGE	Error includes scale factor of 1.6. See the ideogram below.				
2422 ±2 ±2	51±18	FRABETTI	94B	E687	γ Be $\to D^{*+}\pi^-$X
2428 ±3 ±2	279±34	AVERY	90	CLEO	$e^+e^- \to D^{*+}\pi^-$X
2414 ±2 ±5	171±22	ALBRECHT	89H	ARG	$e^+e^- \to D^{*+}\pi^-$X
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2428 ±8 ±5	171^{+43}_{-58}	ANJOS	89C	TPS	$\gamma N \to D^{*+}\pi^-$X



$D_1(2420)^0$ WIDTH

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

$\Gamma(D^*(2010)^+\pi^-)/\Gamma_{total}$ Γ_1/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
seen	ANJOS	89C	TPS	$\gamma N \to D^{*+}\pi^-$X

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

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