

# $D_2^*(2460)^0$

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

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

## $D_2^*(2460)^0$ MASS

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>2458.9 ± 2.0 OUR AVERAGE</b>		Error includes scale factor of 1.2.		
2465 ± 3 ± 3	486	AVERY	94C CLE2	$e^+ e^- \rightarrow D^+ \pi^- X$
2453 ± 3 ± 2	128	FRABETTI	94B E687	$\gamma Be \rightarrow D^+ \pi^- X$
2461 ± 3 ± 1	440	AVERY	90 CLEO	$e^+ e^- \rightarrow D^{*+} \pi^- X$
2455 ± 3 ± 5	337	ALBRECHT	89B ARG	$e^+ e^- \rightarrow D^+ \pi^- X$
2459 ± 3 ± 2	153	ANJOS	89C TPS	$\gamma N \rightarrow D^+ \pi^- X$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
2461 ± 6	126	<sup>1</sup> ABREU	98M DLPH	$e^+ e^-$
2466 ± 7	1	ASRATYAN	95 BEBC	53,40 $\nu(\bar{\nu}) \rightarrow p + X,$ $d + X$

<sup>1</sup>No systematic error given.

## $D_2^*(2460)^0$ WIDTH

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

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

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

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad D^+ \pi^-$	seen
$\Gamma_2 \quad D^*(2010)^+ \pi^-$	seen

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

$\Gamma(D^+\pi^-)/\Gamma_{\text{total}}$					$\Gamma_1/\Gamma$
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT	
<b>seen</b>	337	ALBRECHT	89B ARG	$e^+e^- \rightarrow D^+\pi^-X$	
<b>seen</b>		ANJOS	89C TPS	$\gamma N \rightarrow D^+\pi^-X$	

  

$\Gamma(D^*(2010)^+\pi^-)/\Gamma_{\text{total}}$					$\Gamma_2/\Gamma$
VALUE		DOCUMENT ID	TECN	COMMENT	
<b>seen</b>		ACKERSTAFF	97W OPAL	$e^+e^- \rightarrow D^{*+}\pi^-X$	
<b>seen</b>		AVERY	90 CLEO	$e^+e^- \rightarrow D^{*+}\pi^-X$	
<b>seen</b>		ALBRECHT	89H ARG	$e^+e^- \rightarrow D^*\pi^-X$	

  

$\Gamma(D^+\pi^-)/\Gamma(D^*(2010)^+\pi^-)$					$\Gamma_1/\Gamma_2$
VALUE		DOCUMENT ID	TECN	COMMENT	
<b><math>2.3 \pm 0.6</math> OUR AVERAGE</b>					
$2.2 \pm 0.7 \pm 0.6$		AVERY	94C CLE2	$e^+e^- \rightarrow D^{*+}\pi^-X$	
$2.3 \pm 0.8$		AVERY	90 CLEO	$e^+e^-$	
$3.0 \pm 1.1 \pm 1.5$		ALBRECHT	89H ARG	$e^+e^- \rightarrow D^*\pi^-X$	

## $D_2^*(2460)^0$ REFERENCES

ABREU	98M	PL B426 231	P. Abreu <i>et al.</i>	(DELPHI Collab.)
ACKERSTAFF	97W	ZPHY C76 425	K. Ackerstaff <i>et al.</i>	(OPAL Collab.)
ASRATYAN	95	ZPHY C68 43	A.E. Asratyan <i>et al.</i>	(BIRM, BELG, CERN+)
AVERY	94C	PL B331 236	P. Avery <i>et al.</i>	(CLEO Collab.)
FRABETTI	94B	PRL 72 324	P.L. Frabetti <i>et al.</i>	(FNAL E687 Collab.)
AVERY	90	PR D41 774	P. Avery, D. Besson	(CLEO Collab.)
ALBRECHT	89B	PL B221 422	H. Albrecht <i>et al.</i>	(ARGUS Collab.) JP
ALBRECHT	89H	PL B232 398	H. Albrecht <i>et al.</i>	(ARGUS Collab.) JP
ANJOS	89C	PRL 62 1717	J.C. Anjos <i>et al.</i>	(FNAL E691 Collab.)

## OTHER RELATED PAPERS

SEMENOV	99	SPU 42 847	S.V. Semenov
		Translated from UFN 42 937.	