

$\chi_{c2}(2P)$

$$I^G(J^{PC}) = 0^+(2^{++})$$

$\chi_{c2}(2P)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
3927.2±2.6 OUR AVERAGE				
3926.7±2.7±1.1	76 ± 17	AUBERT	10G BABR	10.6 $e^+e^- \rightarrow e^+e^- D\bar{D}$
3929 ±5 ±2	64	UEHARA	06 BELL	10.6 $e^+e^- \rightarrow e^+e^- D\bar{D}$

$\chi_{c2}(2P)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
24 ± 6 OUR AVERAGE				
21.3± 6.8±3.6	76 ± 17	AUBERT	10G BABR	10.6 $e^+e^- \rightarrow e^+e^- D\bar{D}$
29 ±10 ±2	64	UEHARA	06 BELL	10.6 $e^+e^- \rightarrow e^+e^- D\bar{D}$

$\chi_{c2}(2P)$ DECAY MODES

Mode
Γ_1 $\gamma\gamma$
Γ_2 $D\bar{D}$
Γ_3 D^+D^-
Γ_4 $D^0\bar{D}^0$

$\chi_{c2}(2P)$ PARTIAL WIDTHS

———— $\chi_{c2}(2P) \Gamma(\gamma\gamma)\Gamma(i)/\Gamma(\text{total})$ ————

$\Gamma(\gamma\gamma) \times \Gamma(D\bar{D})/\Gamma_{\text{total}}$	EVTS	DOCUMENT ID	TECN	COMMENT	$\Gamma_1\Gamma_2/\Gamma$
0.21±0.04 OUR AVERAGE					
0.24±0.05±0.04	76 ± 17	AUBERT	10G BABR	10.6 $e^+e^- \rightarrow e^+e^- D\bar{D}$	
0.18±0.05±0.03	64	¹ UEHARA	06 BELL	10.6 $e^+e^- \rightarrow e^+e^- D\bar{D}$	

¹ Assuming $B(D^+D^-) = 0.89 B(D^0\bar{D}^0)$.

$\chi_{c2}(2P)$ BRANCHING RATIOS

$\Gamma(D^+D^-)/\Gamma(D^0\bar{D}^0)$	EVTS	DOCUMENT ID	TECN	COMMENT	Γ_3/Γ_4
0.74±0.43±0.16					
	64	UEHARA	06 BELL	10.6 $e^+e^- \rightarrow e^+e^- D\bar{D}$	

$\chi_{c2}(2P)$ REFERENCES

AUBERT	10G	PR D81 092003	B. Aubert <i>et al.</i>	(BABAR Collab.)
UEHARA	06	PRL 96 082003	S. Uehara <i>et al.</i>	(BELLE Collab.)