

X(3940)

$$J^G(J^{PC}) = ??(???)$$

OMITTED FROM SUMMARY TABLE

Reported by ABE 07, observed in $e^+e^- \rightarrow J/\psi X$.**X(3940) MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
3943 ± 6 ± 6	25	¹ ABE	07	BELL $e^+e^- \rightarrow J/\psi X$
••• We do not use the following data for averages, fits, limits, etc. •••				
3936 ± 14	266	² ABE	07	BELL $e^+e^- \rightarrow J/\psi(c\bar{c})$
¹ From a fit to $D^{*+}D^-$ and $D^{*0}\bar{D}^0$ events.				
² From the inclusive fit. Not independent of the exclusive measurement by ABE 07.				

X(3940) WIDTH

VALUE (MeV)	CL%	EVTS	DOCUMENT ID	TECN	COMMENT
<52	90	25	ABE	07	BELL $e^+e^- \rightarrow J/\psi X$

X(3940) DECAY MODES

Mode	Fraction (Γ_i/Γ)	Confidence level
Γ_1 $D\bar{D}^*$	>45 %	90%
Γ_2 $D\bar{D}$	<41 %	90%
Γ_3 $J/\psi\omega$	<26 %	90%

X(3940) BRANCHING RATIOS

$\Gamma(D\bar{D}^*)/\Gamma_{\text{total}}$					Γ_1/Γ
VALUE	CL%	EVTS	DOCUMENT ID	TECN	COMMENT
>0.45	90	25	³ ABE	07	BELL $e^+e^- \rightarrow J/\psi X$

³ For X(3940) decaying to final states with more than two tracks.

$\Gamma(D\bar{D})/\Gamma_{\text{total}}$					Γ_2/Γ
VALUE	CL%	DOCUMENT ID	TECN	COMMENT	
<0.41	90	⁴ ABE	07	BELL $e^+e^- \rightarrow J/\psi X$	

⁴ For X(3940) decaying to final states with more than two tracks.

$\Gamma(J/\psi\omega)/\Gamma_{\text{total}}$					Γ_3/Γ
VALUE	CL%	DOCUMENT ID	TECN	COMMENT	
<0.26	90	⁵ ABE	07	BELL $e^+e^- \rightarrow J/\psi X$	

⁵ For X(3940) decaying to final states with more than two tracks.

X(3940) REFERENCES

ABE 07 PRL 98 082001 K. Abe *et al.* (BELLE Collab.)

OTHER RELATED PAPERS

BUISSERET 07 PR C76 025206 F. Buisseret
