

X(3940)

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

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
$3943 \pm 6 \pm 6$	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.)