

# 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
$3942^{+7}_{-6} \pm 6$	52	PAKHLOV 08	BELL	$e^+e^- \rightarrow J/\psi X$

• • • We do not use the following data for averages, fits, limits, etc. • • •

$3943 \pm 6 \pm 6$	25	<sup>1</sup> ABE	07	BELL $e^+e^- \rightarrow J/\psi X$
$3936 \pm 14$	266	<sup>2</sup> ABE	07	BELL $e^+e^- \rightarrow J/\psi(c\bar{c})$

<sup>1</sup> From a fit to  $D^{*+}D^-$  and  $D^{*0}\bar{D}^0$  events.

<sup>2</sup> From the inclusive fit. Not independent of the exclusive measurement by ABE 07.

## X(3940) WIDTH

VALUE (MeV)	CL%	EVTS	DOCUMENT ID	TECN	COMMENT
$37^{+26}_{-15} \pm 8$		52	PAKHLOV 08	BELL	$e^+e^- \rightarrow J/\psi X$

• • • We do not use the following data for averages, fits, limits, etc. • • •

<52	90	25	ABE	07	BELL $e^+e^- \rightarrow J/\psi X$
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## X(3940) DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $D\bar{D}^* + c.c.$	seen
$\Gamma_2$ $D\bar{D}$	not seen
$\Gamma_3$ $J/\psi\omega$	not seen

## X(3940) BRANCHING RATIOS

$\Gamma(D\bar{D}^* + c.c.)/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$				
VALUE	CL%	EVTS	DOCUMENT ID	TECN	COMMENT
>0.45	90	25	<sup>3,4</sup> ABE	07	BELL $e^+e^- \rightarrow J/\psi X$

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

<sup>4</sup> PAKHLOV 08 finds that the inclusive peak near 3940 MeV/c<sup>2</sup> may consist of several states.

$\Gamma(D\bar{D})/\Gamma_{\text{total}}$   $\Gamma_2/\Gamma$

VALUE CL% DOCUMENT ID TECN COMMENT

• • • We do not use the following data for averages, fits, limits, etc. • • •

<0.41                      90        <sup>5,6</sup> ABE                      07    BELL     $e^+e^- \rightarrow J/\psi X$

<sup>5</sup> For  $X(3940)$  decaying to final states with more than two tracks.

<sup>6</sup> PAKHLOV 08 finds that the inclusive peak near 3940 MeV/c<sup>2</sup> may consist of several states.

$\Gamma(J/\psi\omega)/\Gamma_{\text{total}}$   $\Gamma_3/\Gamma$

VALUE CL% DOCUMENT ID TECN COMMENT

• • • We do not use the following data for averages, fits, limits, etc. • • •

<0.26                      90        <sup>7,8</sup> ABE                      07    BELL     $e^+e^- \rightarrow J/\psi X$

<sup>7</sup> For  $X(3940)$  decaying to final states with more than two tracks.

<sup>8</sup> PAKHLOV 08 finds that the inclusive peak near 3940 MeV/c<sup>2</sup> may consist of several states.

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**X(3940) REFERENCES**

PAKHLOV	08	PRL 100 202001	P. Pakhlov <i>et al.</i>	(BELLE Collab.)
ABE	07	PRL 98 082001	K. Abe <i>et al.</i>	(BELLE Collab.)

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