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 ±6	52	PAKHLOV	08	BELL	$e^+e^- o J/\psi X$
14/ 1			۲.	12	

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

3943± 6±6

25 ¹ ABE 266 ² ABE

07 BELL $e^+e^- \rightarrow J/v$

 3936 ± 14 266

07 BELL $e^+e^- \rightarrow J/\psi(c\overline{c})$

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X(3940) WIDTH

VALUE (MeV)	CL%	<i>EVTS</i>	DOCUMENT ID		TECN	COMMENT
$37^{+26}_{-15}\pm8$		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	$e^+e^- o J/\psi X$

X(3940) DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ ₁ Γ ₂ Γ ₃	$D\overline{\overline{D}}^*+$ c.c. $D\overline{\overline{D}}$ $J/\psi\omega$	seen not seen not seen

X(3940) BRANCHING RATIOS

$\Gamma(D\overline{D}^* + \text{c.c.})/\Gamma_{\text{total}}$							
VALUE	CL%	EVTS	DOCUMENT ID	TECN	COMMENT		
• • • We do r	not use the	e followi	ng data for averages, fi	ts, limits,	etc. • • •		
>0.45	90	25	3,4 ABE 07	BELL	$e^+e^- ightarrow J$	$I/\psi X$	

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

 $^{^{1}}_{\bullet}$ From a fit to $D^{*+}D^{-}$ and $D^{*0}\overline{D}{}^{0}$ events.

² From the inclusive fit. Not independent of the exclusive measurement by ABE 07.

 $^{^4\,\}mathrm{PAKHLOV}$ 08 finds that the inclusive peak near 3940 MeV/c^2 may consist of several states.

 $\Gamma(D\overline{D})/\Gamma_{\text{total}}$ Γ_2/Γ DOCUMENT ID _____ TECN COMMENT CL% • • • We do not use the following data for averages, fits, limits, etc. • • • 5,6 ABF 07 BELL $e^+e^- \rightarrow J/\psi X$ 5 For X(3940) decaying to final states with more than two tracks. ⁶ PAKHLOV 08 finds that the inclusive peak near 3940 MeV/c² may consist of several $\Gamma(J/\psi\omega)/\Gamma_{\text{total}}$ Γ_3/Γ DOCUMENT ID TECN COMMENT • • • We do not use the following data for averages, fits, limits, etc. • • • 7,8 ABF BELL $e^+e^- \rightarrow J/\psi X$ 90 < 0.26 ⁷ For X(3940) decaying to final states with more than two tracks. 8 PAKHLOV 08 finds that the inclusive peak near 3940 MeV/c 2 may consist of several X(3940) REFERENCES (BELLE Collab.) (BELLE Collab.) PAKHLOV PRL 100 202001 80 P. Pakhlov et al. ABE 07 PRL 98 082001 K. Abe et al.

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