$\psi(4660)$

$I^G(J^{PC}) = 0^-(1^{--})$

also known as $Y(4660)$; was $X(4660)$

This state shows properties different from a conventional $q\overline{q}$ state. A candidate for an exotic structure. See the review on non-$q\overline{q}$ states.

Seen in radiative return from e^+e^- collisions at $\sqrt{s}$ = 9.54–10.58 GeV by WANG 07D. Also obtained in a combined fit of WANG 07D, AUBERT 07S, and LEES 14F. See also the review on "Spectroscopy of mesons containing two heavy quarks."

$\psi(4660)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
4641 ±10 OUR AVERAGE		Error includes scale factor of 2.7. See the ideogram below.			
4708 $^{+17}_{-15}$ ±21		[1] ABLIKIM	23BI	BES3	$e^+e^- \to K^+K^-J/\psi$
4701.8±10.9± 2.7		[2] ABLIKIM	23H	BES3	$e^+e^- \to \phi\chi_{c2}$
4675.3±29.5± 3.5		[3] ABLIKIM	23X	BES3	$e^+e^- \to D^{*0}D^{*-}\pi^+$
4651.0±37.8± 2.1		[4] ABLIKIM	21AJ	BES3	$e^+e^- \to \pi^+\pi^-\psi(2S)$
4619.8 $^{+8.9}_{-8.0}$ ± 2.3	66	[5] JIA	20	BELL	$e^+e^- \to \gamma D_s^+ D_{s2}^*(2573)^-$
4625.9 $^{+6.2}_{-6.0}$ ± 0.4	89	[6] JIA	19A	BELL	$e^+e^- \to \gamma D_s^+ D_{s1}(2536)^-$
4652 ±10 ±11	279	[7] WANG	15A	BELL	10.58 $e^+e^- \to \gamma\pi^+\pi^-\psi(2S)$
4669 ±21 ± 3	37	[8] LEES	14F	BABR	10.58 $e^+e^- \to \gamma\pi^+\pi^-\psi(2S)$
4634 $^{+8}_{-7}$ $^{+5}_{-8}$	142	[9] PAKHLOVA	08B	BELL	$e^+e^- \to \Lambda_c^+\Lambda_c^-$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
4647.9± 8.6± 0.8		[10] ABLIKIM	22R	BES3	$e^+e^- \to \pi^+\pi^-\chi_{c1}\gamma$
4652.5± 3.4± 1.1		[11] DAI	17	RVUE	$e^+e^- \to \Lambda_c^+\Lambda_c^-$
4645.2± 9.5± 6.0		[12] ZHANG	17B	RVUE	$e^+e^- \to \pi^+\pi^-\psi(2S)$
4646.4± 9.7± 4.8		[13] ZHANG	17C	RVUE	$e^+e^- \to \pi^+\pi^-J/\psi$ or $\psi(2S)$
4661 $^{+9}_{-8}$ ± 6	44	[14] LIU	08H	RVUE	10.58 $e^+e^- \to \gamma\pi^+\pi^-\psi(2S)$
4664 ±11 ± 5	44	WANG	07D	BELL	10.58 $e^+e^- \to \gamma\pi^+\pi^-\psi(2S)$

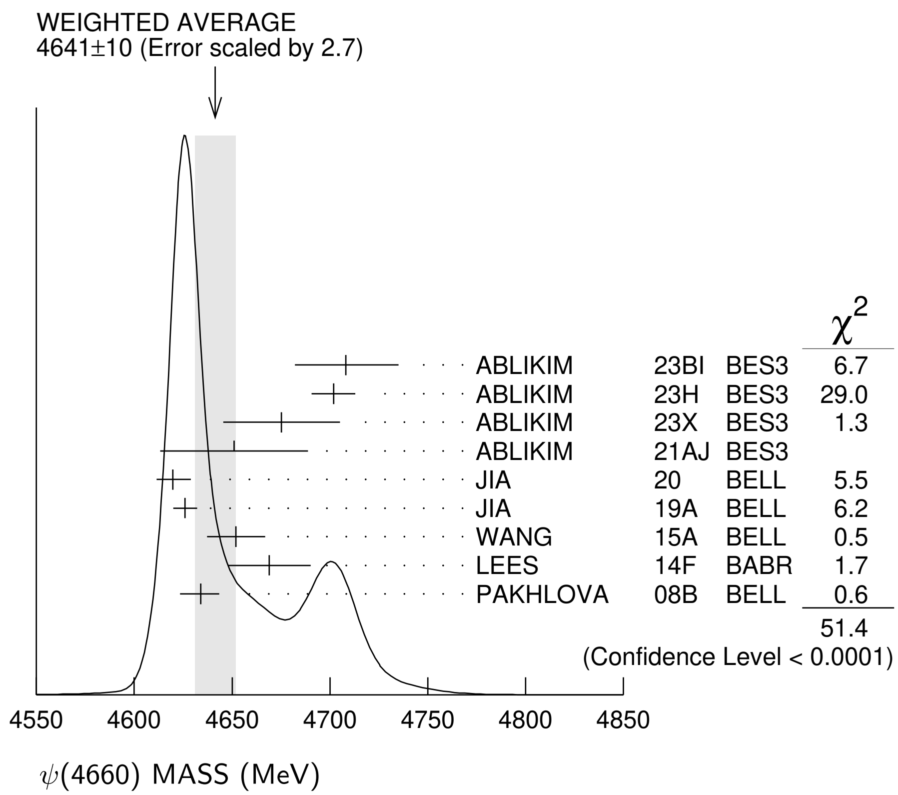
[1] Seen as a peak in the c.m. energy dependence of the $e^+e^- \to K^+K^-J/\psi$ cross section using 5.85 fb^{-1} of data at c.m. energies 4.61–4.95 GeV. Statistical significance is over 5σ.

[2] Fit model parameterized as the coherent sum of a Breit-Wigner resonance and a continuum amplitude term.

[3] From a cross-section measurement of $e^+e^- \to D^{*0}D^{*-}\pi^+$ between 4.189 and 4.951 GeV, assuming a coherent sum of 3 Breit-Wigner resonances plus a continuum amplitude. The two other resonances have masses (widths) 4209.6 ± 7.5 (81.6 ± 19.9) MeV and 4469.1 ± 26.4 (246.3 ± 37.9) MeV.

[4] From a three-resonance fit to the Born cross section in the range $\sqrt{s}$ = 4.008–4.698 GeV.

[5] Using $D^*_{s2}(2573)^- \to \overline{D}^0 K^-$ decays.
[6] From a fit of a Breit-Wigner convolved with a Gaussian.
[7] From a two-resonance fit. Supersedes WANG 07D.
[8] From a two-resonance fit.
[9] The $\pi^+\pi^-\psi(2S)$ and $\Lambda_c^+\Lambda_c^-$ states are not necessarily the same.
[10] From a fit to the $e^+e^- \to \pi^+\pi^-\psi(3823)$ cross section between 4.23 and 4.70 GeV with two coherent Breit-Wigner resonances. The data is also consistent with a single peak with mass 4417.5 ± 26.2 ± 3.5 MeV and width 245 ± 48 ± 13 MeV.
[11] The pole parameters are extracted from the speed plot.
[12] From a three-resonance fit.
[13] From a combined fit of BELLE, BABAR and BES3 $e^+e^- \to \pi^+\pi^- J/\psi$ and $e^+e^- \to \pi^+\pi^-\psi(2S)$ data.
[14] From a combined fit of AUBERT 07S and WANG 07D data with two resonances.



$\psi(4660)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
73 $^{+13}_{-11}$ OUR AVERAGE		Error includes scale factor of 1.7. See the ideogram below.		
$126\ ^{+27}_{-23} \pm 30$		[1] ABLIKIM 23BI	BES3	$e^+e^- \to K^+K^- J/\psi$
$30.5 \pm 22.3 \pm 14.6$		[2] ABLIKIM 23H	BES3	$e^+e^- \to \phi\chi_{c2}$
$218.3 \pm 72.9 \pm 9.3$		[3] ABLIKIM 23X	BES3	$e^+e^- \to D^{*0}D^{*-}\pi^+$
$155.4 \pm 24.8 \pm 0.8$		[4] ABLIKIM 21AJ	BES3	$e^+e^- \to \pi^+\pi^-\psi(2S)$
$47.0\ ^{+31.3}_{-14.8} \pm 4.6$	66	[5] JIA 20	BELL	$e^+e^- \to \gamma D_s^+ D^*_{s2}(2573)^-$

$49.8^{+13.9}_{-11.5}\pm 4.0$	89	[6] JIA	19A	BELL	$e^+e^- \to \gamma D_s^+ D_{s1}(2536)^-$
$68 \pm 11 \pm 5$	279	[7] WANG	15A	BELL	10.58 $e^+e^- \to \gamma\pi^+\pi^-\psi(2S)$
$104 \pm 48 \pm 10$	37	[8] LEES	14F	BABR	10.58 $e^+e^- \to \gamma\pi^+\pi^-\psi(2S)$
$92\ {}^{+40}_{-24}\ {}^{+10}_{-21}$	142	[9] PAKHLOVA	08B	BELL	$e^+e^- \to \Lambda_c^+\Lambda_c^-$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$33.1\pm18.6\pm 4.1$		[10] ABLIKIM	22R	BES3	$e^+e^- \to \pi^+\pi^-\chi_{c1}\gamma$
$62.6\pm 5.6\pm 4.3$		[11] DAI	17	RVUE	$e^+e^- \to \Lambda_c^+\Lambda_c^-$
$113.8\pm18.1\pm 3.4$		[12] ZHANG	17B	RVUE	$e^+e^- \to \pi^+\pi^-\psi(2S)$
$103.5\pm15.6\pm 4.0$		[13] ZHANG	17C	RVUE	$e^+e^- \to \pi^+\pi^- J/\psi$ or $\psi(2S)$
$42\ {}^{+17}_{-12}\pm 6$	44	[14] LIU	08H	RVUE	10.58 $e^+e^- \to \gamma\pi^+\pi^-\psi(2S)$
$48 \pm 15 \pm 3$	44	WANG	07D	BELL	10.58 $e^+e^- \to \gamma\pi^+\pi^-\psi(2S)$

[1] Seen as a peak in the c.m. energy dependence of the $e^+e^- \to K^+K^- J/\psi$ cross section using 5.85 fb^{-1} of data at c.m. energies 4.61–4.95 GeV. Statistical significance is over 5σ.

[2] Fit model parameterized as the coherent sum of a Breit-Wigner resonance and a continuum amplitude term.

[3] From a cross-section measurement of $e^+e^- \to D^{*0}D^{*-}\pi^+$ between 4.189 and 4.951 GeV, assuming a coherent sum of 3 Breit-Wigner resonances plus a continuum amplitude. The two other resonances have masses (widths) 4209.6 ± 7.5 (81.6 ± 19.9) MeV and 4469.1 ± 26.4 (246.3 ± 37.9) MeV.

[4] From a three-resonance fit to the Born cross section in the range $\sqrt{s}$ = 4.008–4.698 GeV.

[5] Using $D_{s2}^*(2573)^- \to \overline{D}^0 K^-$ decays.

[6] From a fit of a Breit-Wigner convolved with a Gaussian.

[7] From a two-resonance fit. Supersedes WANG 07D.

[8] From a two-resonance fit.

[9] The $\pi^+\pi^-\psi(2S)$ and $\Lambda_c^+\Lambda_c^-$ states are not necessarily the same.

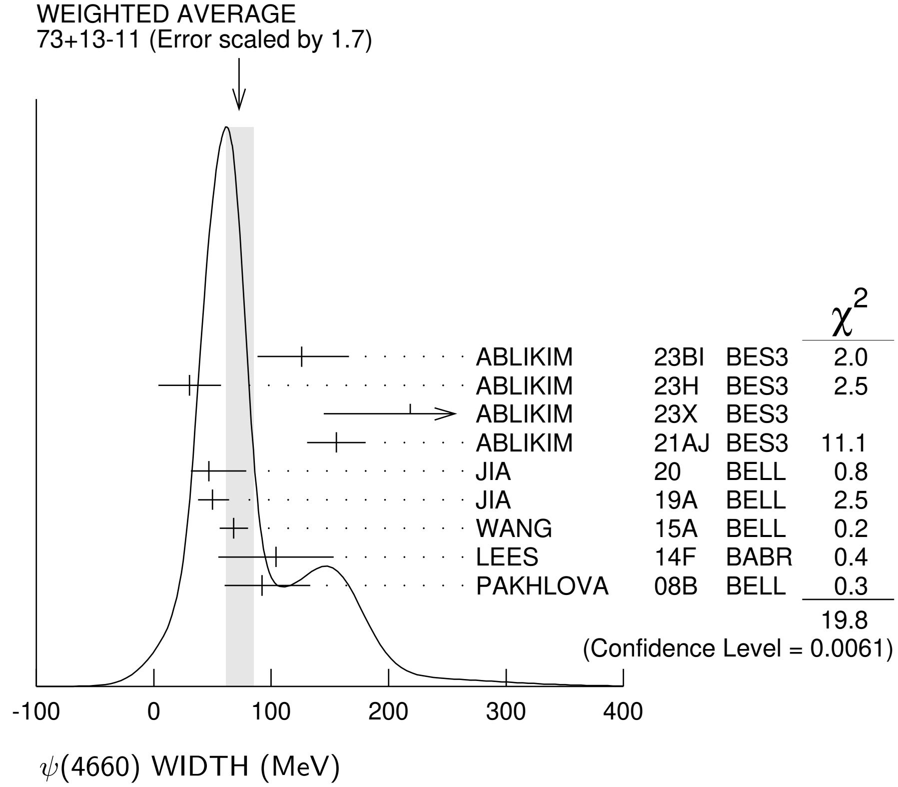
[10] From a fit to the $e^+e^- \to \pi^+\pi^-\psi(3823)$ cross section between 4.23 and 4.70 GeV with two coherent Breit-Wigner resonances. The data is also consistent with a single peak with mass 4417.5 ± 26.2 ± 3.5 MeV and width 245 ± 48 ± 13 MeV.

[11] The pole parameters are extracted from the speed plot.

[12] From a three-resonance fit.

[13] From a combined fit of BELLE, BABAR and BES3 $e^+e^- \to \pi^+\pi^- J/\psi$ and $e^+e^- \to \pi^+\pi^-\psi(2S)$ data.

[14] From a combined fit of AUBERT 07S and WANG 07D data with two resonances.



$\psi(4660)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$e^+ e^-$	not seen
Γ_2	$\psi(2S)\pi^+\pi^-$	seen
Γ_3	$J/\psi\eta$	not seen
Γ_4	$D^0 D^{*-}\pi^+$	not seen
Γ_5	$D^{*0} D^{*-}\pi^+$	seen
Γ_6	$\psi_2(3823)\pi^+\pi^-$	seen
Γ_7	$\chi_{c1}\gamma$	not seen
Γ_8	$\chi_{c1}\phi$	not seen
Γ_9	$\chi_{c2}\gamma$	not seen
Γ_{10}	$\chi_{c2}\phi$	not seen
Γ_{11}	$\Lambda_c^+\Lambda_c^-$	seen
Γ_{12}	$D_s^+ D_{s1}(2536)^-$	seen
Γ_{13}	$D_s^+ D_{s2}^*(2573)^-$	seen
Γ_{14}	$\omega\pi^0$	not seen
Γ_{15}	$\omega\eta$	not seen
Γ_{16}	$\Xi^-\overline{\Xi}^+$	not seen
Γ_{17}	$p K^-\overline{\Lambda}$+ c.c.	not seen

$\psi(4660)$ Γ(i) × Γ(e^+e^-)/Γ(total)

$\Gamma\big(\psi(2S)\pi^+\pi^-\big) \times \Gamma\big(e^+e^-\big)/\Gamma_{total}$ — $\Gamma_2\Gamma_1/\Gamma$

VALUE (eV)	EVTS	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
4.7 ± 3.8		[1] ABLIKIM	21AJ	BES3	$e^+e^- \rightarrow \pi^+\pi^-\psi(2S)$
11.2 ± 3.2		[2] ABLIKIM	21AJ	BES3	$e^+e^- \rightarrow \pi^+\pi^-\psi(2S)$
4.7 ± 4.2		[3] ABLIKIM	21AJ	BES3	$e^+e^- \rightarrow \pi^+\pi^-\psi(2S)$
11.3 ± 3.3		[4] ABLIKIM	21AJ	BES3	$e^+e^- \rightarrow \pi^+\pi^-\psi(2S)$
$2.0\pm0.3\pm0.2$	279	[5] WANG	15A	BELL	10.58 $e^+e^- \rightarrow \gamma\pi^+\pi^-\psi(2S)$
$8.1\pm1.1\pm1.0$	279	[6] WANG	15A	BELL	10.58 $e^+e^- \rightarrow \gamma\pi^+\pi^-\psi(2S)$
$2.7\pm1.3\pm0.5$	37	[7] LEES	14F	BABR	10.58 $e^+e^- \rightarrow \gamma\pi^+\pi^-\psi(2S)$
$7.5\pm1.7\pm0.7$	37	[8] LEES	14F	BABR	10.58 $e^+e^- \rightarrow \gamma\pi^+\pi^-\psi(2S)$
$2.2^{+0.7}_{-0.6}$	44	[9] LIU	08H	RVUE	10.58 $e^+e^- \rightarrow \gamma\pi^+\pi^-\psi(2S)$
5.9 ± 1.6	44	[10] LIU	08H	RVUE	10.58 $e^+e^- \rightarrow \gamma\pi^+\pi^-\psi(2S)$
$3.0\pm0.9\pm0.3$	44	[7] WANG	07D	BELL	10.58 $e^+e^- \rightarrow \gamma\pi^+\pi^-\psi(2S)$
$7.6\pm1.8\pm0.8$	44	[8] WANG	07D	BELL	10.58 $e^+e^- \rightarrow \gamma\pi^+\pi^-\psi(2S)$

[1] Solution I of four equivalent solutions in a fit using three interfering resonances.
[2] Solution II of four equivalent solutions in a fit using three interfering resonances.
[3] Solution III of four equivalent solutions in a fit using three interfering resonances.
[4] Solution IV of four equivalent solutions in a fit using three interfering resonances.
[5] Solution I of two equivalent solutions from a fit using two interfering resonances. Supersedes WANG 07D.
[6] Solution II of two equivalent solutions from a fit using two interfering resonances. Supersedes WANG 07D.
[7] Solution I of two equivalent solutions in a fit using two interfering resonances.
[8] Solution II of two equivalent solutions in a fit using two interfering resonances.
[9] Solution I in a combined fit of AUBERT 07S and WANG 07D data with two resonances.
[10] Solution II in a combined fit of AUBERT 07S and WANG 07D data with two resonances.

$\Gamma\big(J/\psi\eta\big) \times \Gamma\big(e^+e^-\big)/\Gamma_{total}$ — $\Gamma_3\Gamma_1/\Gamma$

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.94	90	WANG	13B	BELL	$e^+e^- \rightarrow J/\psi\eta\gamma$

$\Gamma\big(D^{*0}D^{*-}\pi^+\big) \times \Gamma\big(e^+e^-\big)/\Gamma_{total}$ — $\Gamma_5\Gamma_1/\Gamma$

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
19 to 2005	[1] ABLIKIM	23X	BES3	$e^+e^- \rightarrow D^{*0}D^{*-}\pi^+$

[1] From a cross-section measurement of $e^+e^- \rightarrow D^{*0}D^{*-}\pi^+$ between 4.189 and 4.951 GeV, assuming a coherent sum of 3 Breit-Wigner resonances plus a continuum amplitude. Depending on solutions I – VIII with same fit qualities.

$\Gamma\big(\chi_{c1}\gamma\big) \times \Gamma\big(e^+e^-\big)/\Gamma_{total}$ — $\Gamma_7\Gamma_1/\Gamma$

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
<0.45	90	[1] HAN	15	BELL	10.58 $e^+e^- \rightarrow \chi_{c1}\gamma$

[1] Using B($\eta \rightarrow \gamma\gamma$) = (39.41 ± 0.21)%.

$\Gamma(\chi_{c1}\phi) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ — $\Gamma_8\Gamma_1/\Gamma$

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.04	90	[1] ABLIKIM	23H	BES3	$e^+e^- \to \phi\chi_{c1}$

[1] Fit model parameterized as the coherent sum of a Breit-Wigner resonance and a continuum amplitude term.

$\Gamma(\chi_{c2}\gamma) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ — $\Gamma_9\Gamma_1/\Gamma$

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
<2.1	90	[1] HAN	15	BELL	10.58 $e^+e^- \to \chi_{c2}\gamma$

[1] Using B($\eta \to \gamma\gamma$) = (39.41 ± 0.21)%.

$\Gamma(\chi_{c2}\phi) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ — $\Gamma_{10}\Gamma_1/\Gamma$

VALUE (eV)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.13 ± 0.13	[1] ABLIKIM	23H	BES3	$e^+e^- \to \phi\chi_{c2}$

[1] Fit model parameterized as the coherent sum of a Breit-Wigner resonance and a continuum amplitude term. Constructive solution of the interference. Destructive solution gives 0.66 ± 0.41 eV.

$\Gamma(D_s^+ D_{s1}(2536)^-) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ — $\Gamma_{12}\Gamma_1/\Gamma$

VALUE (eV)	EVTS	DOCUMENT ID		TECN	COMMENT
$\mathbf{14.3^{+2.8}_{-2.6} \pm 1.5}$	89	[1] JIA	19A	BELL	$e^+e^- \to \gamma D_s^+ D_{s1}(2536)^-$

[1] Assuming B($D_{s1}(2536)^- \to \overline{D}^{*0} K^-$) = 1.

$\Gamma(D_s^+ D_{s2}^*(2573)^-) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ — $\Gamma_{13}\Gamma_1/\Gamma$

VALUE (eV)	EVTS	DOCUMENT ID		TECN	COMMENT
$\mathbf{14.7^{+5.9}_{-4.5} \pm 3.6}$	66	[1] JIA	20	BELL	$e^+e^- \to \gamma D_s^+ D_{s2}^*(2573)^-$

[1] Assuming B($D_{s2}^*(2573)^- \to \overline{D}^0 K^-$) = 1.

$\Gamma(\Xi^-\overline{\Xi}^+) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ — $\Gamma_{16}\Gamma_1/\Gamma$

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
<0.0199	90	[1] ABLIKIM	23BK	BES3	$e^+e^- \to \psi(4660)$

[1] From a fit to $e^+e^- \to \Xi^-\overline{\Xi}^+$ cross sections.

$\Gamma(pK^-\overline{\Lambda}+\text{c.c.}) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ — $\Gamma_{17}\Gamma_1/\Gamma$

VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT
$\mathbf{<2.8 \times 10^{-3}}$	90	[1] ABLIKIM	23BL	BES3	$e^+e^- \to \psi(4660)$

[1] From a fit to $e^+e^- \to pK^-\overline{\Lambda}+$ c.c. cross sections.

$\psi(4660)$ $\Gamma(i) \times \Gamma(e^+ e^-)/\Gamma^2(\text{total})$

$\Gamma(D^0 D^{*-} \pi^+)/\Gamma_{\text{total}} \times \Gamma(e^+ e^-)/\Gamma_{\text{total}}$ — $\Gamma_4/\Gamma \times \Gamma_1/\Gamma$

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
$<0.37 \times 10^{-6}$	90	[1] PAKHLOVA	09	BELL	$e^+ e^- \to D^0 D^{*-} \pi^+$

[1] Using 4664 $\pm$ 11 $\pm$ 5 MeV for the mass of $\psi(4660)$.

$\Gamma(\Lambda_c^+ \Lambda_c^-)/\Gamma_{\text{total}} \times \Gamma(e^+ e^-)/\Gamma_{\text{total}}$ — $\Gamma_{11}/\Gamma \times \Gamma_1/\Gamma$

VALUE (units 10^{-6})	EVTS	DOCUMENT ID		TECN	COMMENT
$0.68^{+0.16}_{-0.15}{}^{+0.29}_{-0.30}$	142	[1] PAKHLOVA	08B	BELL	$e^+ e^- \to \Lambda_c^+ \Lambda_c^-$

[1] The $\pi^+ \pi^- \psi(2S)$ and $\Lambda_c^+ \Lambda_c^-$ states are not necessarily the same.

$\psi(4660)$ BRANCHING RATIOS

$\Gamma(D^0 D^{*-} \pi^+)/\Gamma(\psi(2S)\pi^+\pi^-)$ — Γ_4/Γ_2

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<10	90	PAKHLOVA	09	BELL	$e^+ e^- \to D^0 D^{*-} \pi^+$

$\Gamma(\psi_2(3823)\pi^+\pi^-)/\Gamma_{\text{total}}$ — Γ_6/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
seen	[1] ABLIKIM	22R	BES3	$e^+ e^- \to \pi^+ \pi^- \chi_{c1} \gamma$

[1] From a fit to the $e^+ e^- \to \pi^+ \pi^- \psi(3823)$ cross section between 4.23 and 4.70 GeV with two coherent Breit-Wigner resonances.

$\Gamma(\omega \pi^0)/\Gamma_{\text{total}}$ — Γ_{14}/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
not seen	ABLIKIM	22K	BES3	$e^+ e^- \to \omega \pi^0$

$\Gamma(\omega \eta)/\Gamma_{\text{total}}$ — Γ_{15}/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
not seen	ABLIKIM	22K	BES3	$e^+ e^- \to \omega \eta$

$\psi(4660)$ REFERENCES

ABLIKIM	23BI	PRL 131 211902	M. Ablikim *et al.*	(BESIII Collab.)
ABLIKIM	23BK	JHEP 2311 228	M. Ablikim *et al.*	(BESIII Collab.)
ABLIKIM	23BL	JHEP 2312 027	M. Ablikim *et al.*	(BESIII Collab.)
ABLIKIM	23H	JHEP 2301 132	M. Ablikim *et al.*	(BESIII Collab.)
ABLIKIM	23X	PRL 130 121901	M. Ablikim *et al.*	(BESIII Collab.)
ABLIKIM	22K	JHEP 2207 064	M. Ablikim *et al.*	(BESIII Collab.)
ABLIKIM	22R	PRL 129 102003	M. Ablikim *et al.*	(BESIII Collab.)
ABLIKIM	21AJ	PR D104 052012	M. Ablikim *et al.*	(BESIII Collab.)
JIA	20	PR D101 091101	S. Jia *et al.*	(BELLE Collab.)
JIA	19A	PR D100 111103	S. Jia *et al.*	(BELLE Collab.)
DAI	17	PR D96 116001	L.-Y. Dai, J. Haidenbauer, U.-G. Meissner	(JULI+)
ZHANG	17B	PR D96 054008	J. Zhang, J. Zhang	
ZHANG	17C	EPJ C77 727	J. Zhang, L. Yuan	

HAN	15	PR D92 012011	Y.L. Han *et al.*	(BELLE Collab.)
WANG	15A	PR D91 112007	X.L. Wang *et al.*	(BELLE Collab.)
LEES	14F	PR D89 111103	J.P. Lees *et al.*	(BABAR Collab.)
WANG	13B	PR D87 051101	X.L. Wang *et al.*	(BELLE Collab.)
PAKHLOVA	09	PR D80 091101	G. Pakhlova *et al.*	(BELLE Collab.)
LIU	08H	PR D78 014032	Z.Q. Liu, X.S. Qin, C.Z. Yuan	
PAKHLOVA	08B	PRL 101 172001	C. Pakhlova *et al.*	(BELLE Collab.)
AUBERT	07S	PRL 98 212001	B. Aubert *et al.*	(BABAR Collab.)
WANG	07D	PRL 99 142002	X.L. Wang *et al.*	(BELLE Collab.)