$\psi(3770)$

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

$\psi(3770)$ MASS

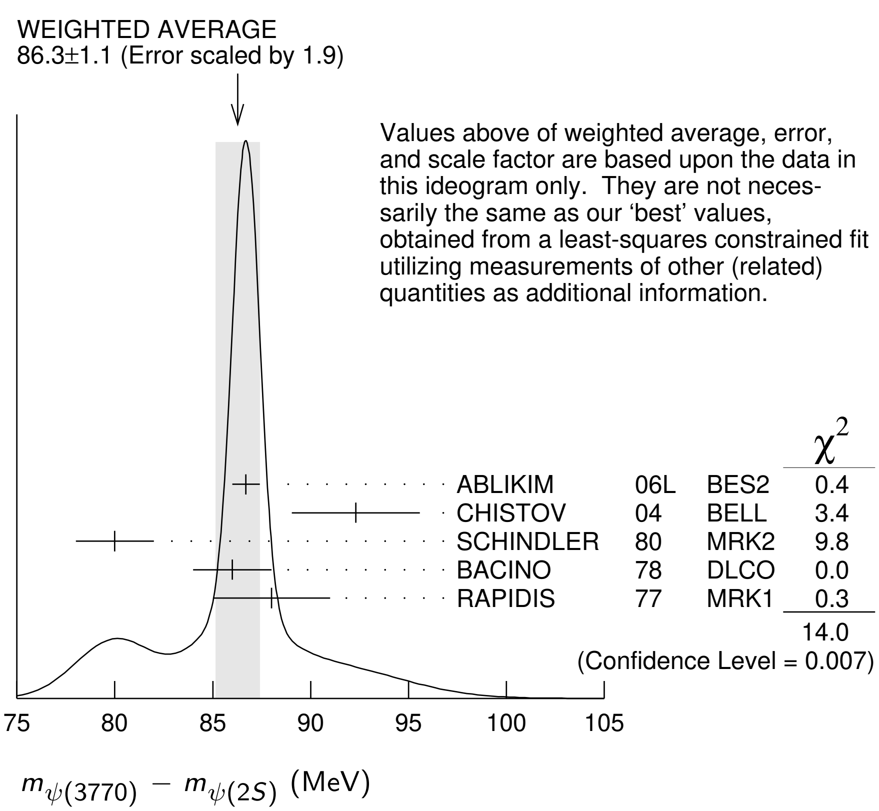
From $m_{\psi(2S)}$ and mass difference below.

VALUE (MeV)	DOCUMENT ID
3772.4±1.1 OUR FIT Error includes scale factor of 1.8.	

$m_{\psi(3770)} - m_{\psi(2S)}$

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
86.3±1.1 OUR FIT Error includes scale factor of 1.8.					
86.3±1.1 OUR AVERAGE Error includes scale factor of 1.9. See the ideogram below.					
86.7±0.7		ABLIKIM	06L	BES2	$e^+e^- \to$ hadrons
92.3±3.0±1.3	34	CHISTOV	04	BELL	$B^+ \to \psi(3770)K^+$
80 ±2		SCHINDLER	80	MRK2	e^+e^-
86 ±2		[1] BACINO	78	DLCO	e^+e^-
88 ±3		RAPIDIS	77	MRK1	e^+e^-

[1] SPEAR $\psi(2S)$ mass subtracted (see SCHINDLER 80).



$\psi(3770)$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
25.2±1.8 OUR FIT				
26.3±1.9 OUR AVERAGE				
26.9±2.4±0.3	ABLIKIM	06L	BES2	$e^+e^- \to$ hadrons
24 ±5	SCHINDLER	80	MRK2	e^+e^-
24 ±5	BACINO	78	DLCO	e^+e^-
28 ±5	RAPIDIS	77	MRK1	e^+e^-

$\psi(3770)$ DECAY MODES

In addition to the dominant decay mode to $D\overline{D}$, $\psi(3770)$ was found to decay into the final states containing the J/ψ (BAI 05, ADAM 06). ADAMS 06 and HUANG 06A searched for various decay modes with light hadrons and found a statistically significant signal for the decay to $\phi\eta$ only (ADAMS 06).

	Mode	Fraction (Γ_i/Γ)	Scale factor/ Confidence level
Γ_1	$D\overline{D}$	(85 ± 5) %	
Γ_2	$D^0\overline{D}^0$	(48.7 ± 3.2) %	
Γ_3	D^+D^-	(36.1 ± 2.8) %	
Γ_4	$J/\psi\pi^+\pi^-$	$(1.93\pm0.28) \times 10^{-3}$	
Γ_5	$J/\psi\pi^0\pi^0$	$(8.0 \pm 3.0) \times 10^{-4}$	
Γ_6	$J/\psi\eta$	$(9 \pm 4) \times 10^{-4}$	
Γ_7	$J/\psi\pi^0$	$< 2.8 \times 10^{-4}$	CL=90%
Γ_8	$\gamma\chi_{c0}$	$(7.3 \pm 0.9) \times 10^{-3}$	
Γ_9	$\gamma\chi_{c1}$	$(2.9 \pm 0.6) \times 10^{-3}$	
Γ_{10}	$\gamma\chi_{c2}$	$< 9 \times 10^{-4}$	CL=90%
Γ_{11}	e^+e^-	$(9.8 \pm 1.2) \times 10^{-6}$	S=1.1
Γ_{12}	$K^0_S K^0_L$	$< 1.2 \times 10^{-5}$	CL=90%
Γ_{13}	$2(\pi^+\pi^-)$	$< 1.12 \times 10^{-3}$	CL=90%
Γ_{14}	$2(\pi^+\pi^-)\pi^0$	$< 1.06 \times 10^{-3}$	CL=90%
Γ_{15}	$\eta\pi^+\pi^-$	$< 1.24 \times 10^{-3}$	CL=90%
Γ_{16}	$\omega\pi^+\pi^-$	$< 6.0 \times 10^{-4}$	CL=90%
Γ_{17}	$\eta 3\pi$	$< 1.34 \times 10^{-3}$	CL=90%
Γ_{18}	$\eta' 3\pi$	$< 2.44 \times 10^{-3}$	CL=90%
Γ_{19}	$K^+K^-\pi^+\pi^-$	$< 9.0 \times 10^{-4}$	CL=90%
Γ_{20}	$\phi\pi^+\pi^-$	$< 4.1 \times 10^{-4}$	CL=90%
Γ_{21}	$\phi f_0(980)$	$< 4.5 \times 10^{-4}$	CL=90%
Γ_{22}	$K^+K^-\pi^+\pi^-\pi^0$	$< 2.36 \times 10^{-3}$	CL=90%
Γ_{23}	ηK^+K^-	$< 4.1 \times 10^{-4}$	CL=90%
Γ_{24}	ωK^+K^-	$< 3.4 \times 10^{-4}$	CL=90%
Γ_{25}	$2(K^+K^-)$	$< 6.0 \times 10^{-4}$	CL=90%
Γ_{26}	ϕK^+K^-	$< 7.5 \times 10^{-4}$	CL=90%

Γ_{27}	$2(K^+K^-)\pi^0$	$<$ 2.9	$\times 10^{-4}$	CL=90%
Γ_{28}	$p\overline{p}\pi^+\pi^-$	$<$ 5.8	$\times 10^{-4}$	CL=90%
Γ_{29}	$p\overline{p}\pi^+\pi^-\pi^0$	$<$ 1.85	$\times 10^{-3}$	CL=90%
Γ_{30}	$\eta p\overline{p}$	$<$ 5.4	$\times 10^{-4}$	CL=90%
Γ_{31}	$\omega p\overline{p}$	$<$ 2.9	$\times 10^{-4}$	CL=90%
Γ_{32}	$p\overline{p}K^+K^-$	$<$ 3.2	$\times 10^{-4}$	CL=90%
Γ_{33}	$\phi p\overline{p}$	$<$ 1.3	$\times 10^{-4}$	CL=90%
Γ_{34}	$\Lambda\overline{\Lambda}$	$<$ 1.2	$\times 10^{-4}$	CL=90%
Γ_{35}	$\Lambda\overline{\Lambda}\pi^+\pi^-$	$<$ 2.5	$\times 10^{-4}$	CL=90%
Γ_{36}	$\Lambda\overline{p}K^+$	$<$ 2.8	$\times 10^{-4}$	CL=90%
Γ_{37}	$\Lambda\overline{p}K^+\pi^+\pi^-$	$<$ 6.3	$\times 10^{-4}$	CL=90%
Γ_{38}	$\phi\eta$	(3.1 $\pm$0.7)	$\times 10^{-4}$	
Γ_{39}	$\pi^+\pi^-\pi^0$	not seen		
Γ_{40}	$\rho\pi$	not seen		
Γ_{41}	$\omega\pi^0$	not seen		
Γ_{42}	$\phi\pi^0$	not seen		
Γ_{43}	$\rho\eta$	not seen		
Γ_{44}	$\omega\eta$	not seen		
Γ_{45}	$\rho\eta'$	not seen		
Γ_{46}	$\omega\eta'$	not seen		
Γ_{47}	$\phi\eta'$	not seen		
Γ_{48}	$K^{*0}\overline{K}^0$	not seen		
Γ_{49}	$K^{*+}K^-$	not seen		
Γ_{50}	$b_1\pi$	not seen		

ψ(3770) PARTIAL WIDTHS

$\Gamma(e^+e^-)$ — Γ_{11}

VALUE (keV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
$\mathbf{0.247^{+0.028}_{-0.025}}$ **OUR FIT** Error includes scale factor of 1.1.					
$\mathbf{0.219^{+0.028}_{-0.022}}$ **OUR AVERAGE**					
$0.204\pm0.003^{+0.041}_{-0.027}$	1.427M	[2] BESSON	06	CLEO	$e^+e^- \rightarrow$ hadrons
0.276 ± 0.050		SCHINDLER	80	MRK2	e^+e^-
$0.18\ \pm0.06$		BACINO	78	DLCO	e^+e^-
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$0.37\ \pm0.09$		[3] RAPIDIS	77	MRK1	e^+e^-

[2] BESSON 06 measure $\sigma(e^+e^- \rightarrow \psi(3770) \rightarrow \text{hadrons}) = 6.38 \pm 0.08^{+0.41}_{-0.30}$ nb at $\sqrt{s} = 3773 \pm 1$ MeV, and obtain Γ_{ee} from the Born-level cross section calculated using ψ(3770) mass and width from our 2004 edition.

[3] See also $\Gamma(e^+e^-)/\Gamma_{\text{total}}$ below.

$\psi(3770)$ BRANCHING RATIOS

$\Gamma(D\overline{D})/\Gamma_{total}$ — Γ_1/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.85 ±0.05 OUR AVERAGE				
0.836±0.073±0.042	ABLIKIM	06L	BES2	$e^+e^- \rightarrow D\overline{D}$
0.855±0.017±0.058	[4] ABLIKIM	06N	BES2	$e^+e^- \rightarrow D\overline{D}$

$\Gamma(D^0\overline{D}^0)/\Gamma_{total}$ — Γ_2/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.487±0.032 OUR AVERAGE				
0.467±0.047±0.023	ABLIKIM	06L	BES2	$e^+e^- \rightarrow D^0\overline{D}^0$
0.499±0.013±0.038	[4] ABLIKIM	06N	BES2	$e^+e^- \rightarrow D^0\overline{D}^0$

$\Gamma(D^+D^-)/\Gamma_{total}$ — Γ_3/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.361±0.028 OUR AVERAGE				
0.369±0.037±0.028	ABLIKIM	06L	BES2	$e^+e^- \rightarrow D^+D^-$
0.357±0.011±0.034	[4] ABLIKIM	06N	BES2	$e^+e^- \rightarrow D^+D^-$

$\Gamma(D^0\overline{D}^0)/\Gamma(D^+D^-)$ — Γ_2/Γ_3

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
1.28±0.14 OUR AVERAGE					
1.27±0.12±0.08		ABLIKIM	06L	BES2	$e^+e^- \rightarrow D\overline{D}$
2.43±1.50±0.43	34	[5] CHISTOV	04	BELL	$B^+ \rightarrow \psi(3770)K^+$

$\Gamma(J/\psi\pi^+\pi^-)/\Gamma_{total}$ — Γ_4/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
1.93±0.28 OUR AVERAGE					
1.89±0.20±0.20	231 ± 33	ADAM	06	CLEO	$e^+e^- \rightarrow \psi(3770)$
3.4 ±1.4 ±0.9	17.8 ± 4.8	BAI	05	BES2	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(J/\psi\pi^0\pi^0)/\Gamma_{total}$ — Γ_5/Γ

VALUE (units 10^{-2})	EVTS	DOCUMENT ID		TECN	COMMENT
0.080±0.025±0.016	39 ± 14	ADAM	06	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(J/\psi\eta)/\Gamma_{total}$ — Γ_6/Γ

VALUE (units 10^{-5})	EVTS	DOCUMENT ID		TECN	COMMENT
87±33±22	22 ± 10	ADAM	06	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(J/\psi\pi^0)/\Gamma_{total}$ — Γ_7/Γ

VALUE (units 10^{-5})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
<28	90	<10	ADAM	06	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(\gamma\chi_{c0})/\Gamma_{total}$ — Γ_8/Γ

VALUE (units 10^{-3})	CL%	EVTS	DOCUMENT ID		TECN	COMMENT
7.3±0.7±0.6		274 ± 27	[6] BRIERE	06	CLEO	$e^+e^- \rightarrow \psi(3770) \rightarrow \gamma +$ hadrons
• • • We do not use the following data for averages, fits, limits, etc. • • •						
< 44	90		[7] COAN	06A	CLEO	$e^+e^- \rightarrow \psi(3770) \rightarrow \gamma\gamma J/\psi$

$\Gamma(\gamma\chi_{c1})/\Gamma_{total}$ — Γ_9/Γ

VALUE (units 10^{-3})	EVTS	DOCUMENT ID		TECN	COMMENT
2.9±0.5±0.4		[8] BRIERE	06	CLEO	$e^+e^- \to \psi(3770) \to \gamma +$ hadrons, $\gamma\gamma J/\psi$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
3.9±1.4±0.6	54 ± 17	[9] BRIERE	06	CLEO	$e^+e^- \to \psi(3770) \to \gamma +$ hadrons
2.8±0.5±0.4	53 ± 10	[7] COAN	06A	CLEO	$e^+e^- \to \psi(3770) \to \gamma\gamma J/\psi$

$\Gamma(\gamma\chi_{c1})/\Gamma(J/\psi\pi^+\pi^-)$ — Γ_9/Γ_4

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
1.49±0.31±0.26	53 ± 10	[10] COAN	06A	CLEO	$e^+e^- \to \psi(3770) \to \gamma\gamma J/\psi$

$\Gamma(\gamma\chi_{c0})/\Gamma(\gamma\chi_{c1})$ — Γ_8/Γ_9

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2.5±0.6	[11] BRIERE	06	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(\gamma\chi_{c2})/\Gamma_{total}$ — Γ_{10}/Γ

VALUE (units 10^{-3})	CL%	DOCUMENT ID		TECN	COMMENT
<0.9	90	[7] COAN	06A	CLEO	$e^+e^- \to \psi(3770) \to \gamma\gamma J/\psi$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<2.0	90	[12] BRIERE	06	CLEO	$e^+e^- \to \psi(3770) \to \gamma +$ hadrons

$\Gamma(\gamma\chi_{c0})/\Gamma(\gamma\chi_{c2})$ — Γ_8/Γ_{10}

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
>8	90	[11] BRIERE	06	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(e^+e^-)/\Gamma_{total}$ — Γ_{11}/Γ

VALUE (units 10^{-5})	DOCUMENT ID		TECN	COMMENT
0.98±0.12 OUR FIT Error includes scale factor of 1.1.				
1.3 ±0.2	RAPIDIS	77	MRK1	e^+e^-

$\Gamma(K^0_S K^0_L)/\Gamma_{total}$ — Γ_{12}/Γ

VALUE (units 10^{-5})	CL%	DOCUMENT ID		TECN	COMMENT
< 1.2	90	[13] CRONIN-HEN...	06	CLEO	$e^+e^- \to \psi(3770)$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<21	90	[14] ABLIKIM	04F	BES	$e^+e^- \to \psi(3770)$

$\Gamma(2(\pi^+\pi^-))/\Gamma_{total}$ — Γ_{13}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<11.2	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(2(\pi^+\pi^-)\pi^0)/\Gamma_{total}$ — Γ_{14}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<10.6	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(\eta\pi^+\pi^-)/\Gamma_{total}$ — Γ_{15}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<12.4	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(\omega\pi^+\pi^-)/\Gamma_{total}$ — Γ_{16}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<6.0	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(\eta 3\pi)/\Gamma_{total}$ — Γ_{17}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<13.4	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(\eta' 3\pi)/\Gamma_{total}$ — Γ_{18}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<24.4	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(K^+K^-\pi^+\pi^-)/\Gamma_{total}$ — Γ_{19}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<9.0	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(\phi\pi^+\pi^-)/\Gamma_{total}$ — Γ_{20}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<4.1	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(\phi f_0(980))/\Gamma_{total}$ — Γ_{21}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<4.5	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(K^+K^-\pi^+\pi^-\pi^0)/\Gamma_{total}$ — Γ_{22}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<23.6	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(\eta K^+K^-)/\Gamma_{total}$ — Γ_{23}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<4.1	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(\omega K^+K^-)/\Gamma_{total}$ — Γ_{24}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<3.4	90	[15] HUANG	06A	CLEO	$e^+e^- \rightarrow \psi(3770)$

$\Gamma(2(K^+K^-))/\Gamma_{total}$ — Γ_{25}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<6.0	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(\phi K^+K^-)/\Gamma_{total}$ — Γ_{26}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<7.5	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(2(K^+K^-)\pi^0)/\Gamma_{total}$ — Γ_{27}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<2.9	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(p\overline{p}\pi^+\pi^-)/\Gamma_{total}$ — Γ_{28}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<5.8	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(p\overline{p}\pi^+\pi^-\pi^0)/\Gamma_{total}$ — Γ_{29}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<18.5	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(\eta p\overline{p})/\Gamma_{total}$ — Γ_{30}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<5.4	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(\omega p\overline{p})/\Gamma_{total}$ — Γ_{31}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<2.9	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(p\overline{p}K^+K^-)/\Gamma_{total}$ — Γ_{32}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<3.2	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(\phi p\overline{p})/\Gamma_{total}$ — Γ_{33}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<1.3	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(\Lambda\overline{\Lambda})/\Gamma_{total}$ — Γ_{34}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<1.2	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(\Lambda\overline{\Lambda}\pi^+\pi^-)/\Gamma_{total}$ — Γ_{35}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<2.5	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(\Lambda\overline{p}K^+)/\Gamma_{total}$ — Γ_{36}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<2.8	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(\Lambda\overline{p}K^+\pi^+\pi^-)/\Gamma_{total}$ — Γ_{37}/Γ

VALUE (units 10^{-4})	CL%	DOCUMENT ID		TECN	COMMENT
<6.3	90	[15] HUANG	06A	CLEO	$e^+e^- \to \psi(3770)$

$\Gamma(\phi\eta)/\Gamma_{total}$ — Γ_{38}/Γ

VALUE (units 10^{-4})	DOCUMENT ID		TECN	COMMENT
3.1±0.6±0.3	[16] ADAMS	06	CLEC	$3.773\ e^+e^- \to \phi\eta$

[4] From a measurement of $\sigma(e^+e^- \to D\overline{D})$ at $\sqrt{s}$ = 3773 MeV, using the $\psi(3770)$ resonance parameters measured by ABLIKIM 06L.
[5] See ADLER 88C for older measurements of this quantity.
[6] Uses $B(\psi(2S) \to \gamma\chi_{c0}) = 9.33 \pm 0.14 \pm 0.61\,\%$ from ATHAR 04, $\psi(2S)$ mass and width from PDG 04, and $\Gamma_{ee}(\psi(2S)) = 2.54 \pm 0.03 \pm 0.11$ keV from ADAM 06.
[7] Using $\Gamma_{ee}(\psi(2S)) = (2.54 \pm 0.03 \pm 0.11)$ keV from ADAM 06 and taking $\sigma(e^+e^- \to D\overline{D})$ from HE 05 for $\sigma(e^+e^- \to \psi(3770))$.
[8] Averages the two measurements from COAN 06A and BRIERE 06.
[9] Uses $B(\psi(2S) \to \gamma\chi_{c1}) = 9.07 \pm 0.11 \pm 0.54\,\%$ from ATHAR 04, $\psi(2S)$ mass and width from PDG 04, and $\Gamma_{ee}(\psi(2S)) = 2.54 \pm 0.03 \pm 0.11$ keV from ADAM 06.
[10] Using $B(\psi(3770) \to J/\psi\pi^+\pi^-) = (1.89 \pm 0.20 \pm 0.20) \times 10^{-3}$ from ADAM 06.
[11] Not independent of other results in BRIERE 06.
[12] Uses $B(\psi(2S) \to \gamma\chi_{c2}) = 9.22 \pm 0.11 \pm 0.46\,\%$ from ATHAR 04, $\psi(2S)$ mass and width from PDG 04, and $\Gamma_{ee}(\psi(2S)) = 2.54 \pm 0.03 \pm 0.11$ keV from ADAM 06.
[13] Using $\sigma(e^+e^- \to \psi(3770) \to \text{hadrons}) = (6.38 \pm 0.08^{+0.41}_{-0.30})$ nb from BESSON 06 and $B(K^0_S \to \pi^+\pi^-) = 0.6895 \pm 0.0014$.
[14] Using $B(K^0_S \to \pi^+\pi^-) = 0.6860 \pm 0.0027$.
[15] Using $\sigma_{tot}(e^+e^- \to \psi(3770)) = 7.9 \pm 0.6$ nb at the resonance.
[16] Comparing $\sigma(e^+e^- \to \phi\eta)$ at $\sqrt{s}$ = 3.773 GeV and $\sqrt{s}$ = 3.671 GeV, and using $\sigma(\psi(3770) \to D\overline{D}) = 6.39 \pm 0.20$ nb.

$\psi(3770)$ REFERENCES

ABLIKIM	06L	PRL 97 121801	M. Ablikim et al.	(BES Collab.)
ABLIKIM	06N	PL B641 145	M. Ablikim et al.	(BES Collab.)
ADAM	06	PRL 96 082004	N.E. Adam et al.	(CLEO Collab.)
ADAMS	06	PR D73 012002	G.S. Adams et al.	(CLEO Collab.)
BESSON	06	PRL 96 092002	D. Besson et al.	(CLEO Collab.)
BRIERE	06	PR D74 031106R	R.A. Briere et al.	(CLEO Collab.)
COAN	06A	PRL 96 182002	T.E. Coan et al.	(CLEO Collab.)
CRONIN-HEN...	06	PR D74 012005	D. Cronin-Hennessy et al.	(CLEO Collab.)
HUANG	06A	PRL 96 032003	G.S. Huang et al.	(CLEO Collab.)
BAI	05	PL B605 63	J.Z. Bai et al.	(BES Collab.)
HE	05	PRL 95 121801	Q. He et al.	(CLEO Collab.)
ABLIKIM	04F	PR D70 077101	M. Ablikim et al.	(BES Collab.)
ATHAR	04	PR D70 112002	S.B. Athar et al.	(CLEO Collab.)
CHISTOV	04	PRL 93 051803	R. Chistov et al.	(BELLE Collab.)
PDG	04	PL B592 1	S. Eidelman et al.	
ADLER	88C	PRL 60 89	J. Adler et al.	(Mark III Collab.)
SCHINDLER	80	PR D21 2716	R.H. Schindler et al.	(Mark II Collab.)
BACINO	78	PRL 40 671	W.J. Bacino et al.	(SLAC, UCLA, UCI)
RAPIDIS	77	PRL 39 526	P.A. Rapidis et al.	(Mark I Collab.)

OTHER RELATED PAPERS

ABLIKIM	06X	PRL 97 262001	M. Ablikim *et al.*	(BES Collab.)
AUBERT,BE	06F	PR D74 111103R	B. Aubert *et al.*	(BABAR Collab.)
ABLIKIM	05K	NP B727 395	M. Ablikim *et al.*	(BES Collab.)
ABLIKIM	05M	PR D72 072007	M. Ablikim *et al.*	(BES Collab.)
BARNES	05	PR D72 054026	T. Barnes, S. Godfrey, E.S. Swanson	
HE	05	PRL 95 121801	Q. He *et al.*	(CLEO Collab.)
VOLOSHIN	05	PR D71 114003	M.B. Voloshin	
VOLOSHIN	05A	PAN 68 771	M.B. Voloshin	
		Translated from YAF 68 804.		
ABLIKIM	04D	PL B603 130	M. Ablikim *et al.*	(BES Collab.)
LIU	04B	PR D70 094001	K.-Y. Liu, K.-.T. Chao	
WANG	04C	PR D70 077505	P. Wang, X.H. Mo, C.Z. Yuan	
WANG	04D	PR D70 114014	P. Wang, C.Z. Yuan, X.H. Mo	