$\Upsilon(10860)$

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

Υ(10860) MASS

VALUE (GeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
10.865±0.008 OUR AVERAGE	Error includes scale factor of 1.1.			
10.868±0.006±0.005	BESSON	85	CLEO	$e^+e^- \to$ hadrons
10.845±0.020	LOVELOCK	85	CUSB	$e^+e^- \to$ hadrons

Υ(10860) WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
110±13 OUR AVERAGE				
112±17±23	BESSON	85	CLEO	$e^+e^- \to$ hadrons
110±15	LOVELOCK	85	CUSB	$e^+e^- \to$ hadrons

Υ(10860) DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	e^+e^-	$(2.8\pm 0.7)\times 10^{-6}$
Γ_2	$B^{(*)}\overline{B}^{(*)}(X)$	
Γ_3	$B\overline{B}$	
Γ_4	$B\overline{B}^* +$ c.c.	
Γ_5	$B^*\overline{B}^*$	
Γ_6	$B^{(*)}\overline{B}^{(*)}\pi$	
Γ_7	$B\overline{B}\pi\pi$	
Γ_8	$B_s\overline{B}_s$	
Γ_9	D_s anything $+$ c.c.	(45 ± 11) %
Γ_{10}	$B_s\overline{B}_s^* +$ c.c.	
Γ_{11}	$B_s^*\overline{B}_s^*$	

Υ(10860) PARTIAL WIDTHS

$\Gamma(e^+e^-)$ Γ_1

VALUE (keV)	*DOCUMENT ID*		*TECN*	*COMMENT*
0.31 ±0.07 OUR AVERAGE	Error includes scale factor of 1.3.			
0.22 ±0.05 ±0.07	BESSON	85	CLEO	$e^+e^- \to$ hadrons
0.365±0.070	LOVELOCK	85	CUSB	$e^+e^- \to$ hadrons

Υ(10860) BRANCHING RATIOS

$\Gamma(B\overline{B})/\Gamma(B^{(*)}\overline{B}^{(*)}(X))$ Γ_3/Γ_2

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<0.22	90	AQUINES	06	CLE3	$\Upsilon(5S) \to$ hadrons

$\Gamma(B\overline{B}^* + \text{c.c.})/\Gamma(B^{(*)}\overline{B}^{(*)}(X))$ — Γ_4/Γ_2

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.24±0.09±0.03	10	AQUINES	06	CLE3	$\Upsilon(5S) \to$ hadrons

$\Gamma(B^*\overline{B}^*)/\Gamma(B^{(*)}\overline{B}^{(*)}(X))$ — Γ_5/Γ_2

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
0.74±0.15±0.08	31	AQUINES	06	CLE3	$\Upsilon(5S) \to$ hadrons

$\Gamma(B^{(*)}\overline{B}^{(*)}\pi)/\Gamma(B^{(*)}\overline{B}^{(*)}(X))$ — Γ_6/Γ_2

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.32	90	AQUINES	06	CLE3	$\Upsilon(5S) \to$ hadrons

$\Gamma(B\overline{B}\pi\pi)/\Gamma(B^{(*)}\overline{B}^{(*)}(X))$ — Γ_7/Γ_2

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.14	90	AQUINES	06	CLE3	$\Upsilon(5S) \to$ hadrons

$\left[\Gamma(B_s\overline{B}_s) + \Gamma(B_s\overline{B}_s^* + \text{c.c.}) + \Gamma(B_s^*\overline{B}_s^*)\right]/\Gamma_{\text{total}}$ — $(\Gamma_8+\Gamma_{10}+\Gamma_{11})/\Gamma$

VALUE	DOCUMENT ID		TECN	COMMENT
0.160±0.026±0.058	[1] ARTUSO	05B	CLE3	$e^+e^- \to D_x X$

$\Gamma(D_s\,\text{anything} + \text{c.c.})/\Gamma_{\text{total}}$ — Γ_9/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
0.45±0.10±0.06	[2] ARTUSO	05B	CLE3	$e^+e^- \to D_x X$

$\Gamma(B_s\overline{B}_s)/\Gamma(B_s^*\overline{B}_s^*)$ — Γ_8/Γ_{11}

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.16	90	BONVICINI	06	CLE3	e^+e^-

$\Gamma(B_s\overline{B}_s^* + \text{c.c.})/\Gamma(B_s^*\overline{B}_s^*)$ — Γ_{10}/Γ_{11}

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
<0.16	90	BONVICINI	06	CLE3	e^+e^-

[1] Uses a model-dependent estimate $B(B_s \to D_s X) = (92 \pm 11)\%$.

[2] ARTUSO 05B reports $[B(\Upsilon(10860) \to D_s\,\text{anything} + \text{c.c.}) \times B(D_s^+ \to \phi\pi^+)] = 0.0198 \pm 0.0019 \pm 0.0038$. We divide by our best value $B(D_s^+ \to \phi\pi^+) = (4.4 \pm 0.6) \times 10^{-2}$. Our first error is their experiment's error and our second error is the systematic error from using our best value.

$\Upsilon(10860)$ REFERENCES

AQUINES	06	PRL 96 152001	O. Aquines *et al.*	(CLEO Collab.)
BONVICINI	06	PRL 96 022002	G. Bonvicini *et al.*	(CLEO Collab.)
ARTUSO	05B	PRL 95 261801	M. Artuso *et al.*	(CLEO Collab.)
BESSON	85	PRL 54 381	D. Besson *et al.*	(CLEO Collab.)
LOVELOCK	85	PRL 54 377	D.M.J. Lovelock *et al.*	(CUSB Collab.)