

$h_b(2P)$

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

OMITTED FROM SUMMARY TABLE

Quantum numbers are quark model predictions.

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### $h_b(2P)$ MASS

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>10259.8 ± 0.5 ± 1.1</b>	90k	MIZUK	12	BELL $e^+e^- \rightarrow \pi^+\pi^-$ hadrons
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
10259.8 ± 0.6 <sup>+1.4</sup> <sub>-1.0</sub>	83.9k	<sup>1</sup> ADACHI	12	BELL 10.86 $e^+e^- \rightarrow \pi^+\pi^-$ MM

<sup>1</sup> Superseded by MIZUK 12.

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### $h_b(2P)$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ hadrons	not seen
$\Gamma_2$ $\eta_b(1S)\gamma$	(22 ± 5) %
$\Gamma_3$ $\eta_b(2S)\gamma$	(48 ± 13) %

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### $h_b(2P)$ BRANCHING RATIOS

$\Gamma(\text{hadrons})/\Gamma_{\text{total}}$				$\Gamma_1/\Gamma$
<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>not seen</b>	83.9k	ADACHI	12	BELL 10.86 $e^+e^- \rightarrow \pi^+\pi^-$ MM

$\Gamma(\eta_b(1S)\gamma)/\Gamma_{\text{total}}$				$\Gamma_2/\Gamma$
<u>VALUE (units 10<sup>-2</sup>)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>22.3 ± 3.8<sup>+3.1</sup><sub>-3.3</sub></b>	10k	MIZUK	12	BELL $e^+e^- \rightarrow (\gamma)\pi^+\pi^-$ hadrons

$\Gamma(\eta_b(2S)\gamma)/\Gamma_{\text{total}}$				$\Gamma_3/\Gamma$
<u>VALUE (units 10<sup>-2</sup>)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>47.5 ± 10.5<sup>+6.8</sup><sub>-7.7</sub></b>	26k	MIZUK	12	BELL $e^+e^- \rightarrow (\gamma)\pi^+\pi^-$ hadrons

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### $h_b(2P)$ REFERENCES

ADACHI	12	PRL 108 032001	I. Adachi <i>et al.</i>	(BELLE Collab.)
MIZUK	12	PRL 109 232002	R. Mizuk <i>et al.</i>	(BELLE Collab.)

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