

# $\eta_b(1S)$

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

OMITTED FROM SUMMARY TABLE

Quantum numbers shown are quark-model predictions. One event is observed with the expected background of one. Needs confirmation.

## $\eta_b(1S)$ MASS

| <u>VALUE (MeV)</u>    | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u>    |
|-----------------------|--------------------|-------------|-------------------|
| <b>9300 ± 20 ± 20</b> | HEISTER            | 02D ALEP    | 181-209 $e^+ e^-$ |

## $\eta_b(1S)$ DECAY MODES

| Mode                      | Fraction ( $\Gamma_i/\Gamma$ ) |
|---------------------------|--------------------------------|
| $\Gamma_1$ $3h^+ 3h^-$    | seen                           |
| $\Gamma_2$ $2h^+ 2h^-$    | not seen                       |
| $\Gamma_3$ $4h^+ 4h^-$    |                                |
| $\Gamma_4$ $\gamma\gamma$ | seen                           |

## $\eta_b(1S)$ $\Gamma(i)\Gamma(\gamma\gamma)/\Gamma(\text{total})$

$$\Gamma(3h^+ 3h^-) \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}} \qquad \Gamma_1\Gamma_4/\Gamma$$

| <u>VALUE (eV)</u>   | <u>CL%</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u>    |
|---|------------|--------------------|-------------|-------------------|
| ● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ● |            |                    |             |                   |
| <470  | 95         | ABDALLAH           | 06 DLPH     | 161-209 $e^+ e^-$ |
| <132  | 95         | HEISTER            | 02D ALEP    | 181-209 $e^+ e^-$ |

$$\Gamma(2h^+ 2h^-) \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}} \qquad \Gamma_2\Gamma_4/\Gamma$$

| <u>VALUE (eV)</u>   | <u>CL%</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u>    |
|---|------------|--------------------|-------------|-------------------|
| ● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ● |            |                    |             |                   |
| <190  | 95         | ABDALLAH           | 06 DLPH     | 161-209 $e^+ e^-$ |
| < 48  | 95         | HEISTER            | 02D ALEP    | 181-209 $e^+ e^-$ |

$$\Gamma(4h^+ 4h^-) \times \Gamma(\gamma\gamma)/\Gamma_{\text{total}} \qquad \Gamma_3\Gamma_4/\Gamma$$

| <u>VALUE (eV)</u>   | <u>CL%</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u>    |
|---|------------|--------------------|-------------|-------------------|
| ● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ● |            |                    |             |                   |
| <660  | 95         | ABDALLAH           | 06 DLPH     | 161-209 $e^+ e^-$ |

## $\eta_b(1S)$ REFERENCES

|          |     |             |                             |                  |
|----------|-----|-------------|-----------------------------|------------------|
| ABDALLAH | 06  | PL B634 340 | J.M. Abdallah <i>et al.</i> | (DELPHI Collab.) |
| HEISTER  | 02D | PL B530 56  | A. Heister <i>et al.</i>    | (ALEPH Collab.)  |