

$\eta_2(1870)$

$$I^G(J^{PC}) = 0^+(2^{-+})$$

OMITTED FROM SUMMARY TABLE

Needs confirmation.

$\eta_2(1870)$ MASS

| <u>VALUE (MeV)</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>CHG</u> | <u>COMMENT</u> |
|---|-------------|--------------------|-------------|------------|---|
| 1854 ± 20 OUR AVERAGE | | | | | |
| 1840 ± 25 | | BARBERIS | 97B | OMEG | 450 $pp \rightarrow pp2(\pi^+\pi^-)$ |
| 1875 ± 20 ± 35 | | ADOMEIT | 96 | CBAR 0 | 1.94 $\bar{p}p \rightarrow \eta 3\pi^0$ |
| 1881 ± 32 ± 40 | 26 | KARCH | 92 | CBAL | $e^+e^- \rightarrow e^+e^-\eta\pi^0\pi^0$ |
| ● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ● | | | | | |
| 1840 ± 15 | | BAI | 99 | BES | $J/\psi \rightarrow \gamma\eta\pi^+\pi^-$ |

$\eta_2(1870)$ WIDTH

| <u>VALUE (MeV)</u> | <u>EVTS</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>CHG</u> | <u>COMMENT</u> |
|---|-------------|--------------------|-------------|------------|---|
| 202 ± 30 OUR AVERAGE | | | | | |
| 200 ± 40 | | BARBERIS | 97B | OMEG | 450 $pp \rightarrow pp2(\pi^+\pi^-)$ |
| 200 ± 25 ± 45 | | ADOMEIT | 96 | CBAR 0 | 1.94 $\bar{p}p \rightarrow \eta 3\pi^0$ |
| 221 ± 92 ± 44 | 26 | KARCH | 92 | CBAL | $e^+e^- \rightarrow e^+e^-\eta\pi^0\pi^0$ |
| ● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ● | | | | | |
| 170 ± 40 | | BAI | 99 | BES | $J/\psi \rightarrow \gamma\eta\pi^+\pi^-$ |

$\eta_2(1870)$ DECAY MODES

| Mode |
|--------------------------------|
| $\Gamma_1 \quad \eta\pi\pi$ |
| $\Gamma_2 \quad a_2(1320)\pi$ |
| $\Gamma_3 \quad f_2(1270)\eta$ |

$\eta_2(1870)$ BRANCHING RATIOS

| $\Gamma(a_2(1320)\pi)/\Gamma(f_2(1270)\eta)$ | Γ_2/Γ_3 | | | |
|--|---------------------|-------------|------------|---|
| <u>VALUE</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>CHG</u> | <u>COMMENT</u> |
| 4.1 ± 2.3 | ADOMEIT | 96 | CBAR 0 | 1.94 $\bar{p}p \rightarrow \eta 3\pi^0$ |

| $\Gamma(\eta\pi\pi)/\Gamma_{\text{total}}$ | | | | Γ_1/Γ |
|---|-------------|--------|--|-------------------|
| VALUE | DOCUMENT ID | TECN | COMMENT | |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | |
| not seen | AMELIN | 00 VES | 37 $\pi^- p \rightarrow \eta\pi^+ \pi^- n$ | |

$\eta_2(1870)$ REFERENCES

| | | | | |
|----------|-----|--------------|---------------------------|--------------------------|
| AMELIN | 00 | NP B668 83 | D. Amelin <i>et al.</i> | (VES Collab.) |
| BAI | 99 | PL B446 356 | J.Z. Bai <i>et al.</i> | (BES Collab.) |
| BARBERIS | 97B | PL B413 217 | D. Barberis <i>et al.</i> | (WA102 Collab.) |
| ADOMEIT | 96 | ZPHY C71 227 | J. Adomeit <i>et al.</i> | (Crystal Barrel Collab.) |
| KARCH | 92 | ZPHY C54 33 | K. Karch <i>et al.</i> | (Crystal Ball Collab.) |

OTHER RELATED PAPERS

| | | | | |
|-------|----|-------------|------------------------|------------------------|
| KARCH | 90 | PL B249 353 | K. Karch <i>et al.</i> | (Crystal Ball Collab.) |
|-------|----|-------------|------------------------|------------------------|