NODE=M115

# $\eta(2225)$

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

OMITTED FROM SUMMARY TABLE

Seen in $J/\psi \to \gamma\phi\phi$. Possibly seen in $B \to \phi\phi K$ by LEES 11A.

NODE=M115

## $\eta(2225)$ MASS

NODE=M115M

NODE=M115M

| *VALUE* (MeV) | *EVTS* | *DOCUMENT ID* | | *TECN* | *COMMENT* |
|---|---|---|---|---|---|
| **$2221^{+13}_{-10}$ OUR AVERAGE** | | | | | |
| $2216^{+\ 4+21}_{-\ 5-11}$ | | [1] ABLIKIM | 16N | BES3 | $J/\psi \to \gamma K^+K^-K^+K^-$ |
| $2240^{+30+30}_{-20-20}$ | $196 \pm 19$ | ABLIKIM | 08I | BES | $J/\psi \to \gamma K^+K^-K^0_S K^0_L$ |
| $2230 \pm 25 \pm 15$ | | BAI | 90B | MRK3 | $J/\psi \to \gamma K^+K^-K^+K^-$ |
| $2214 \pm 20 \pm 13$ | | BAI | 90B | MRK3 | $J/\psi \to \gamma K^+K^-K^0_S K^0_L$ |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | | |
| $\sim 2220$ | | BISELLO | 86B | DM2 | $J/\psi \to \gamma K^+K^-K^+K^-$ |

OCCUR=2

[1] From a partial wave analysis of $J/\psi \to \gamma\phi\phi$ that also finds significant signals for for $\eta(2100)$, $0^{-+}$ phase space, $f_0(2100)$, $f_2(2010)$, $f_2(2300)$, $f_2(2340)$, and a previously unseen $0^{-+}$ state $X(2500)$ (M = $2470^{+15+101}_{-19-\ 23}$ MeV, $\Gamma = 230^{+64+56}_{-35-33}$ MeV).

NODE=M115M;LINKAGE=B

## $\eta(2225)$ WIDTH

NODE=M115W

NODE=M115W

| *VALUE* (MeV) | *EVTS* | *DOCUMENT ID* | | *TECN* | *COMMENT* |
|---|---|---|---|---|---|
| **$185^{+\ 40}_{-\ 20}$ OUR AVERAGE** | | | | | |
| $185^{+\ 12+43}_{-\ 14-17}$ | | [1] ABLIKIM | 16N | BES3 | $J/\psi \to \gamma K^+K^-K^+K^-$ |
| $190 \pm \ 30^{+60}_{-40}$ | $196 \pm 19$ | ABLIKIM | 08I | BES | $J/\psi \to \gamma K^+K^-K^0_S K^0_L$ |
| $150^{+300}_{-\ 60} \pm 60$ | | BAI | 90B | MRK3 | $J/\psi \to \gamma K^+K^-K^+K^-$ |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | | | |
| $\sim 80$ | | BISELLO | 86B | DM2 | $J/\psi \to \gamma K^+K^-K^+K^-$ |

[1] From a partial wave analysis of $J/\psi \to \gamma\phi\phi$ that also finds significant signals for for $\eta(2100)$, $0^{-+}$ phase space, $f_0(2100)$, $f_2(2010)$, $f_2(2300)$, $f_2(2340)$, and a previously unseen $0^{-+}$ state $X(2500)$ (M = $2470^{+15+101}_{-19-\ 23}$ MeV, $\Gamma = 230^{+64+56}_{-35-33}$ MeV).

NODE=M115W;LINKAGE=A

## $\eta(2225)$ REFERENCES

NODE=M115


| | | | | | |
|---|---|---|---|---|---|
| ABLIKIM | 16N | PR D93 112011 | M. Ablikim | (BESIII Collab.) | REFID=57512 |
| LEES | 11A | PR D84 012001 | J.P. Lees *et al.* | (BABAR Collab.) | REFID=16595 |
| ABLIKIM | 08I | PL B662 330 | M. Ablikim *et al.* | (BES Collab.) | REFID=52255 |
| BAI | 90B | PRL 65 1309 | Z. Bai *et al.* | (Mark III Collab.) | REFID=41354 |
| BISELLO | 86B | PL B179 294 | D. Bisello *et al.* | (DM2 Collab.) | REFID=22101 |