

**$\eta(2225)$** 

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

OMITTED FROM SUMMARY TABLE

Seen in  $J/\psi \rightarrow \gamma\phi\phi$ . Possibly seen in  $B \rightarrow \phi\phi K$  by LEES 11A. **$\eta(2225)$  MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b><math>2221^{+13}_{-10}</math> OUR AVERAGE</b>				
$2216^{+4+21}_{-5-11}$		<sup>1</sup> ABLIKIM	16N BES3	$J/\psi \rightarrow \gamma K^+ K^- K^+ K^-$
$2240^{+30+30}_{-20-20}$	$196 \pm 19$	ABLIKIM	08I BES	$J/\psi \rightarrow \gamma K^+ K^- K_S^0 K_L^0$
$2230 \pm 25 \pm 15$		BAI	90B MRK3	$J/\psi \rightarrow \gamma K^+ K^- K^+ K^-$
$2214 \pm 20 \pm 13$		BAI	90B MRK3	$J/\psi \rightarrow \gamma K^+ K^- K_S^0 K_L^0$

● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●

~ 2220 BISELLO 86B DM2  $J/\psi \rightarrow \gamma K^+ K^- K^+ K^-$ 

<sup>1</sup>From a partial wave analysis of  $J/\psi \rightarrow \gamma\phi\phi$  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).

 **$\eta(2225)$  WIDTH**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b><math>185^{+40}_{-20}</math> OUR AVERAGE</b>				
$185^{+12+43}_{-14-17}$		<sup>1</sup> ABLIKIM	16N BES3	$J/\psi \rightarrow \gamma K^+ K^- K^+ K^-$
$190 \pm 30^{+60}_{-40}$	$196 \pm 19$	ABLIKIM	08I BES	$J/\psi \rightarrow \gamma K^+ K^- K_S^0 K_L^0$
$150^{+300}_{-60} \pm 60$		BAI	90B MRK3	$J/\psi \rightarrow \gamma K^+ K^- K^+ K^-$

● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●

~ 80 BISELLO 86B DM2  $J/\psi \rightarrow \gamma K^+ K^- K^+ K^-$ 

<sup>1</sup>From a partial wave analysis of  $J/\psi \rightarrow \gamma\phi\phi$  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).

 **$\eta(2225)$  REFERENCES**

ABLIKIM	16N	PR D93 112011	M. Ablikim	(BESIII Collab.)
LEES	11A	PR D84 012001	J.P. Lees <i>et al.</i>	(BABAR Collab.)
ABLIKIM	08I	PL B662 330	M. Ablikim <i>et al.</i>	(BES Collab.)
BAI	90B	PRL 65 1309	Z. Bai <i>et al.</i>	(Mark III Collab.)
BISELLO	86B	PL B179 294	D. Bisello <i>et al.</i>	(DM2 Collab.)