$\eta_2(1870)$

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

OMITTED FROM SUMMARY TABLE

Needs confirmation.

$\eta_2(1870)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
1877±32 OUR AVERAGE						
1875±20±35		ADOMEIT	96	CBAR	0	1.94 $\overline{p}p \rightarrow \eta 3\pi^0$
1881±32±40	26	KARCH	92	CBAL		$e^+e^- \rightarrow e^+e^-\eta\pi^0\pi^0$

$\eta_2(1870)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
204±50 OUR AVERAGE						
200±25±45		ADOMEIT	96	CBAR	0	1.94 $\overline{p}p \rightarrow \eta 3\pi^0$
221±92±44	26	KARCH	92	CBAL		$e^+e^- \rightarrow e^+e^-\eta\pi^0\pi^0$

$\eta_2(1870)$ DECAY MODES

	Mode
Γ_1	$\eta\pi\pi$
Γ_2	$a_2(1320)\pi$
Γ_3	$a_0(980)\pi$
Γ_4	$f_2(1270)\eta$

$\eta_2(1870)$ BRANCHING RATIOS

$\Gamma(a_0(980)\pi)/\Gamma(a_2(1320)\pi)$ Γ_3/Γ_2

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
~ 0.9	[1] KARCH	92	CBAL	$e^+e^- \rightarrow e^+e^-\eta\pi^0\pi^0$

[1] Decay to $a_0(980)\pi$ not seen by ADOMEIT 96

$\Gamma(a_2(1320)\pi)/\Gamma(f_2(1270)\eta)$ Γ_2/Γ_4

VALUE	DOCUMENT ID		TECN	CHG	COMMENT
4.1±2.3	ADOMEIT	96	CBAR	0	1.94 $\overline{p}p \rightarrow \eta 3\pi^0$

$\eta_2(1870)$ REFERENCES

ADOMEIT	96	ZPHY C71 227	+Amsler, Armstrong+	(Crystal Barrel Collab.)
KARCH	92	ZPHY C54 33	+Antreasyan, Bartels+	(Crystal Ball Collab.)

OTHER RELATED PAPERS

KARCH	90	PL B249 353	+Antreasyan, Bartels+	(Crystal Ball Collab.)