$\eta_2(1870)$

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

OMITTED FROM SUMMARY TABLE

Needs confirmation.

$\eta_2(1870)$ MASS

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

$\eta_2(1870)$ WIDTH

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

$\eta_2(1870)$ DECAY MODES

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

$\eta_2(1870)$ BRANCHING RATIOS

$\Gamma(a_2(1320)\pi)/\Gamma(f_2(1270)\eta)$ Γ_2/Γ_3

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

$\Gamma(\eta\pi\pi)/\Gamma_{total}$ 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 *et al.*	(VES Collab.)
BAI	99	PL B446 356	J.Z. Bai *et al.*	(BES Collab.)
BARBERIS	97B	PL B413 217	D. Barberis *et al.*	(WA102 Collab.)
ADOMEIT	96	ZPHY C71 227	J. Adomeit *et al.*	(Crystal Barrel Collab.)
KARCH	92	ZPHY C54 33	K. Karch *et al.*	(Crystal Ball Collab.)

OTHER RELATED PAPERS

KARCH	90	PL B249 353	K. Karch *et al.*	(Crystal Ball Collab.)