

$f_2(1910)$

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

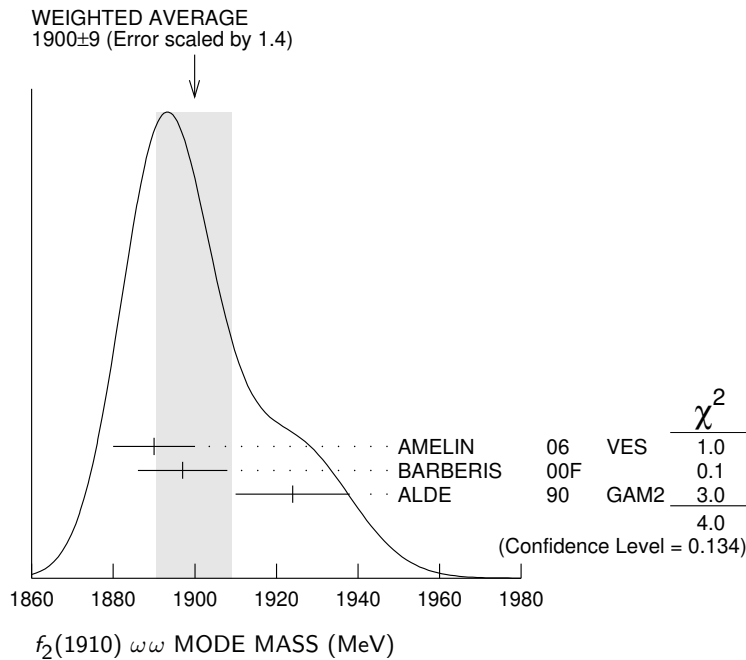
OMITTED FROM SUMMARY TABLE

We list here three different peaks with close masses and widths seen in the mass distributions of $\omega\omega$, $\eta\eta'$, and K^+K^- final states. ALDE 91B argues that they are of different nature.

 $f_2(1910)$ MASS **$f_2(1910)$ $\omega\omega$ MODE**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
1900 ± 9 OUR AVERAGE	Error includes scale factor of 1.4. See the ideogram below.		
1890 ± 10	¹ AMELIN	06 VES	36 $\pi^- p \rightarrow \omega\omega n$
1897 ± 11	BARBERIS	00F	450 $p p \rightarrow p_f \omega\omega p_s$
1924 ± 14	ALDE	90 GAM2	38 $\pi^- p \rightarrow \omega\omega n$

¹ Supersedes BELADIDZE 92B.

 **$f_2(1910)$ $\eta\eta'$ MODE**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
1934 ± 16	¹ BARBERIS	00A	450 $p p \rightarrow p_f \eta\eta' p_s$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1934 ± 20	² ANISOVICH	00J	SPEC
1911 ± 10	ALDE	91B	GAM2 38 $\pi^- p \rightarrow \eta\eta' n$

¹ Also compatible with $J^{PC} = 1^-+$.

² Combined fit with $\eta\eta$, $\pi\pi$, and $\eta\pi\pi$.

 $f_2(1910)$ K^+K^- MODE

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1941 ± 18	¹ AMSLER	06	CBAR 1.64 $\bar{p} p \rightarrow K^+ K^- \pi^0$
¹ Tentative, could be $f_2(1950)$.			

NODE=M142

NODE=M142

NODE=M142205

NODE=M142MX

NODE=M142M2

NODE=M142M2

NODE=M142M2;LINKAGE=AM

NODE=M142M3

NODE=M142M3

NODE=M142M3;LINKAGE=KS

NODE=M142M3;LINKAGE=AN

NODE=M142M4

NODE=M142M4

NODE=M142M4;LINKAGE=A

$f_2(1910)$ WIDTH

NODE=M142210

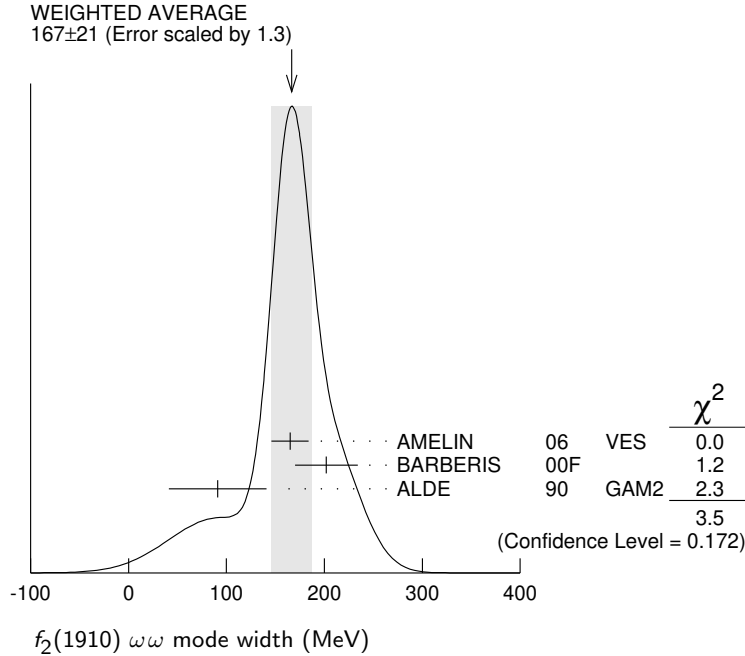
NODE=M142WX

NODE=M142W2
NODE=M142W2 **$f_2(1910)$ $\omega\omega$ MODE**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
167 ± 21 OUR AVERAGE	Error includes scale factor of 1.3. See the ideogram below.		
165 ± 19	¹ AMELIN	06 VES	$36 \pi^- p \rightarrow \omega\omega n$
202 ± 32	BARBERIS	00F	$450 p p \rightarrow p_f \omega\omega p_s$
91 ± 50	ALDE	90 GAM2	$38 \pi^- p \rightarrow \omega\omega n$

¹ Supersedes BELADIDZE 92B.

NODE=M142W2;LINKAGE=AM

 **$f_2(1910)$ $\eta\eta'$ MODE**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
141 ± 41	¹ BARBERIS	00A	$450 p p \rightarrow p_f \eta\eta' p_s$
271 ± 25	² ANISOVICH	00J SPEC	
90 ± 35	ALDE	91B GAM2	$38 \pi^- p \rightarrow \eta\eta' n$

¹ Also compatible with $J^{PC}=1^-+$.² Combined fit with $\eta\eta$, $\pi\pi$, and $\eta\pi\pi$.NODE=M142W3
NODE=M142W3NODE=M142W3;LINKAGE=KS
NODE=M142W3;LINKAGE=AN **$f_2(1910)$ $K^+ K^-$ MODE**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
120 ± 40	AMSLER	06 CBAR	$1.64 \bar{p} p \rightarrow K^+ K^- \pi^0$

NODE=M142W4
NODE=M142W4 **$f_2(1910)$ DECAY MODES**

NODE=M142215;NODE=M142

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \pi^0 \pi^0$	
$\Gamma_2 K^+ K^-$	seen
$\Gamma_3 K_S^0 K_S^0$	
$\Gamma_4 \eta\eta$	seen
$\Gamma_5 \omega\omega$	seen
$\Gamma_6 \eta\eta'$	seen
$\Gamma_7 \eta'\eta'$	
$\Gamma_8 \rho\rho$	seen
$\Gamma_9 a_2(1320)\pi$	seen
$\Gamma_{10} f_2(1270)\eta$	seen

DESIG=6

DESIG=11

DESIG=8

DESIG=3;OUR EST;→ UNCHECKED ←

DESIG=4;OUR EST;→ UNCHECKED ←

DESIG=5;OUR EST;→ UNCHECKED ←

DESIG=9

DESIG=10;OUR EST;→ UNCHECKED ←

DESIG=12;OUR EST;→ UNCHECKED ←

DESIG=13;OUR EST;→ UNCHECKED ←

$f_2(1910)$ BRANCHING RATIOS **$\Gamma(K^+K^-)/\Gamma_{\text{total}}$** **$\Gamma_2/\Gamma$**

VALUE	DOCUMENT ID	TECN	COMMENT
seen	¹ AMSLER	06	CBAR 1.64 $\bar{p}p \rightarrow K^+K^-\pi^0$

¹ Tentative, could be $f_2(1950)$.

NODE=M142225

NODE=M142R11
NODE=M142R11

NODE=M142R11;LINKAGE=A

 $\Gamma(\pi^0\pi^0)/\Gamma(\eta\eta')$ **Γ_1/Γ_6**

VALUE	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			

<0.1 ALDE 89 GAM2 $38\pi^-p \rightarrow \eta\eta'n$ NODE=M142R4
NODE=M142R4 **$\Gamma(K_S^0K_S^0)/\Gamma(\eta\eta')$** **$\Gamma_3/\Gamma_6$**

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				

<0.066 90 BALOSHIN 86 SPEC $40\pi p \rightarrow K_S^0K_S^0n$ NODE=M142R7
NODE=M142R7 **$\Gamma(\eta\eta)/\Gamma(\eta\eta')$** **$\Gamma_4/\Gamma_6$**

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				

<0.05 90 ALDE 91B GAM2 $38\pi^-p \rightarrow \eta\eta'n$ NODE=M142R6
NODE=M142R6 **$\Gamma(\omega\omega)/\Gamma(\eta\eta')$** **$\Gamma_5/\Gamma_6$**

VALUE	DOCUMENT ID	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •		

2.6±0.6 BARBERIS 00F 450 $pp \rightarrow p_f\omega\omega p_S$ NODE=M142R10
NODE=M142R10 **$\Gamma(\eta'\eta')/\Gamma_{\text{total}}$** **$\Gamma_7/\Gamma$**

VALUE	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			

probably not seen BARBERIS 00A 450 $pp \rightarrow p_f\eta'\eta'p_S$
possibly seen BELADIDZE 92D VES $37\pi^-p \rightarrow \eta'\eta'n$ NODE=M142R8
NODE=M142R8 **$\Gamma(\rho\rho)/\Gamma(\omega\omega)$** **$\Gamma_8/\Gamma_5$**

VALUE	DOCUMENT ID	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •		

2.6±0.4 BARBERIS 00F 450 $pp \rightarrow p_f\omega\omega p_S$ NODE=M142R9
NODE=M142R9 **$\Gamma(f_2(1270)\eta)/\Gamma(a_2(1320)\pi)$** **$\Gamma_{10}/\Gamma_9$**

VALUE	DOCUMENT ID	TECN	COMMENT
0.09±0.05	¹ ANISOVICH	11	SPEC 0.9–1.94 $p\bar{p}$

¹ Reanalysis of ADOMEIT 96 and ANISOVICH 00E.NODE=M142R12
NODE=M142R12

NODE=M142R12;LINKAGE=AN

 $f_2(1910)$ REFERENCES

NODE=M142

ANISOVICH	11	EPJ C71 1511	A.V. Anisovich <i>et al.</i>	(LOQM, RAL, PNPI)
AMELIN	06	PAN 69 690	D.V. Amelin <i>et al.</i>	(VES Collab.)
Translated from YAF 69 715.				
AMSLER	06	PL B639 165	C. Amsler <i>et al.</i>	(Crystal Barrel Collab.)
ANISOVICH	00E	PL B477 19	A.V. Anisovich <i>et al.</i>	
ANISOVICH	00J	PL B491 47	A.V. Anisovich <i>et al.</i>	(RAL, LOQM, PNPI+)
BARBERIS	00A	PL B471 429	D. Barberis <i>et al.</i>	(WA 102 Collab.)
BARBERIS	00F	PL B484 198	D. Barberis <i>et al.</i>	(WA 102 Collab.)
ADOMEIT	96	ZPHY C71 227	J. Adomeit <i>et al.</i>	(Crystal Barrel Collab.)
BELADIDZE	92B	ZPHY C54 367	G.M. Beladidze <i>et al.</i>	(VES Collab.)
BELADIDZE	92D	ZPHY C57 13	G.M. Beladidze <i>et al.</i>	(VES Collab.)
ALDE	91B	SJNP 54 455	D.M. Alde <i>et al.</i>	(SERP, BELG, LANL, LAPP+)
Translated from YAF 54 751.				
Also		PL B276 375	D.M. Alde <i>et al.</i>	(BELG, SERP, KEK, LANL+)
ALDE	90	PL B241 600	D.M. Alde <i>et al.</i>	(SERP, BELG, LANL, LAPP+)
ALDE	89	PL B216 447	D.M. Alde <i>et al.</i>	(SERP, BELG, LANL, LAPP)
Also		SJNP 48 1035	D.M. Alde <i>et al.</i>	(BELG, SERP, LANL, LAPP)
Translated from YAF 48 1724.				
BALOSHIN	86	SJNP 43 959	O.N. Baloshin <i>et al.</i>	(ITEP)
Translated from YAF 43 1487.				

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REFID=51574REFID=51136
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