

$f_2(1910)$

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

OMITTED FROM SUMMARY TABLE

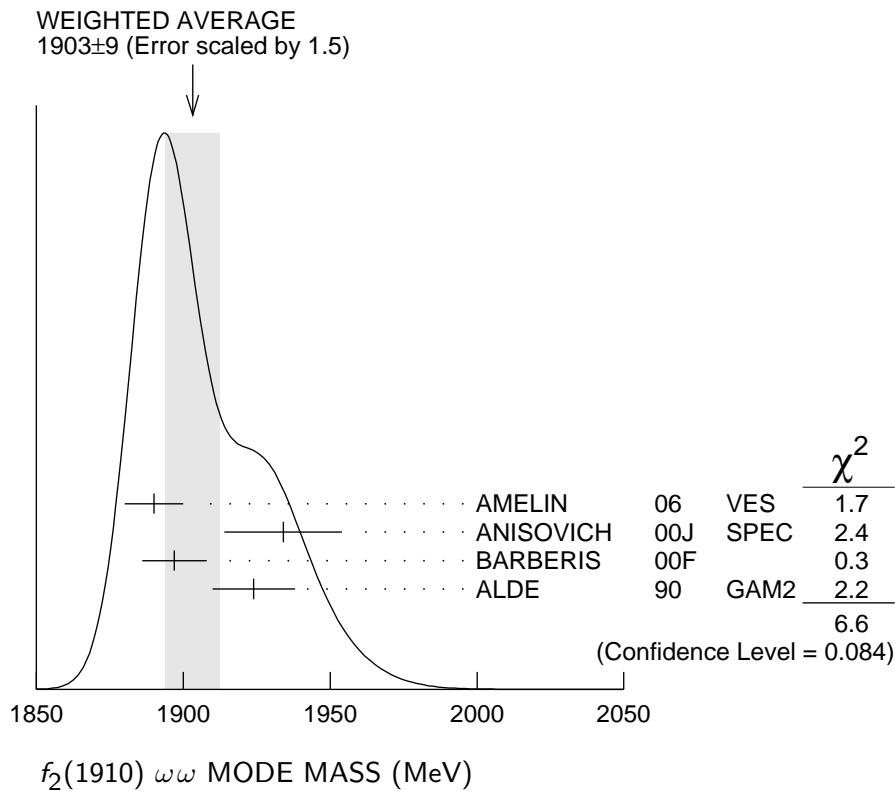
We list here three different peaks with close masses and widths seen in the mass distributions of $\omega\omega$, $\eta\eta'$, and K^+K^- final states. ALDE 91B argues that they are of different nature.

$f_2(1910)$ MASS

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

| VALUE (MeV) | DOCUMENT ID | TECN | COMMENT |
|-----------------------------|---|------|--|
| 1903 ± 9 OUR AVERAGE | Error includes scale factor of 1.5. See the ideogram below. | | |
| 1890 ± 10 | ¹ AMELIN | 06 | VES 36 $\pi^- p \rightarrow \omega\omega n$ |
| 1934 ± 20 | ANISOVICH | 00J | SPEC |
| 1897 ± 11 | BARBERIS | 00F | 450 $pp \rightarrow p_f\omega\omega p_S$ |
| 1924 ± 14 | ALDE | 90 | GAM2 38 $\pi^- p \rightarrow \omega\omega n$ |

¹Supersedes BELADIDZE 92B.



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

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

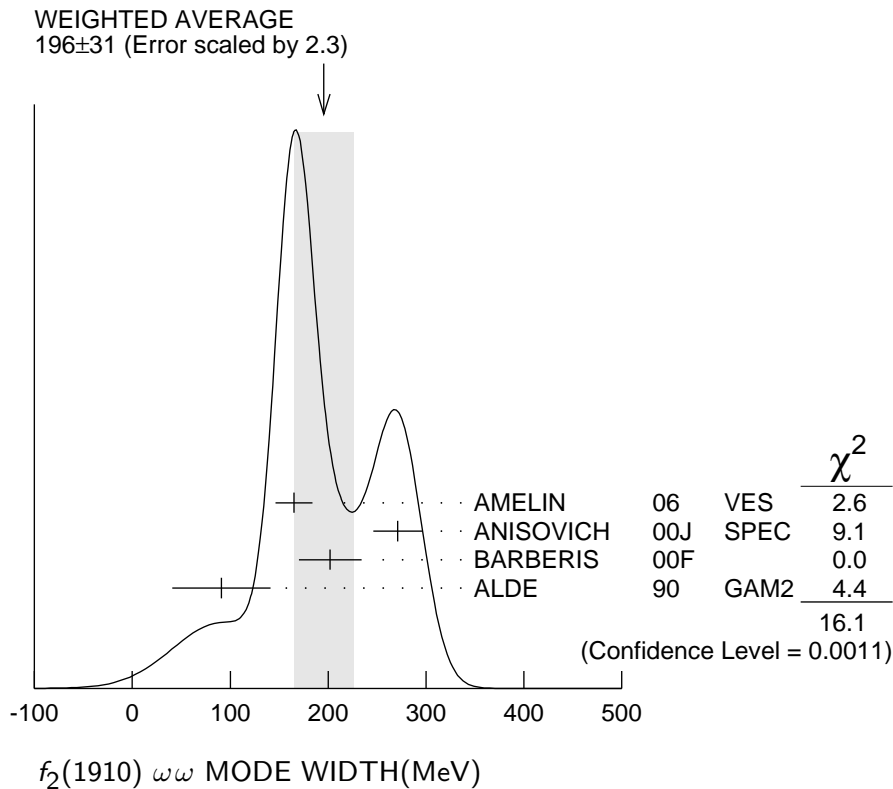
$f_2(1910) K^+ K^-$ MODE

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

$f_2(1910)$ WIDTH

$f_2(1910) \omega\omega$ MODE

| VALUE (MeV) | DOCUMENT ID | TECN | COMMENT |
|--|---|------|--|
| 196±31 OUR AVERAGE | Error includes scale factor of 2.3. See the ideogram below. | | |
| 165±19 | ³ AMELIN | 06 | VES 36 $\pi^- p \rightarrow \omega\omega n$ |
| 271±25 | ANISOVICH | 00J | SPEC |
| 202±32 | BARBERIS | 00F | 450 $p p \rightarrow p_f \omega\omega p_s$ |
| 91±50 | ALDE | 90 | GAM2 38 $\pi^- p \rightarrow \omega\omega n$ |
| ³ Supersedes BELADIDZE 92B. | | | |



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

| <u>VALUE (MeV)</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> |
|---|-----------------------|-------------|---|
| 141±41 | ⁴ BARBERIS | 00A | 450 $p p \rightarrow p_f \eta\eta' p_S$ |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | |
| 90±35 | ALDE | 91B | GAM2 38 $\pi^- p \rightarrow \eta\eta' n$ |
| ⁴ Also compatible with $J^{PC}=1^-+$. | | | |

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

| <u>VALUE (MeV)</u> | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u> |
|---|--------------------|-------------|---|
| • • • We do not use the following data for averages, fits, limits, etc. • • • | | | |
| 120±40 | AMSLER | 06 | CBAR 1.64 $\bar{p} p \rightarrow K^+ K^- \pi^0$ |

$f_2(1910)$ DECAY MODES

| 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 |

$f_2(1910)$ BRANCHING RATIOS

| $\Gamma(K^+ K^-)/\Gamma_{\text{total}}$ | Γ_2/Γ |
|---|---|
| <u>VALUE</u> | <u>DOCUMENT ID</u> <u>TECN</u> <u>COMMENT</u> |
| seen | AMSLER 06 CBAR 1.64 $\bar{p} p \rightarrow K^+ K^- \pi^0$ |

| $\Gamma(\pi^0 \pi^0)/\Gamma(\eta\eta')$ | Γ_1/Γ_6 |
|---|---|
| <u>VALUE</u> | <u>DOCUMENT ID</u> <u>TECN</u> <u>COMMENT</u> |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | |
| <0.1 | ALDE 89 GAM2 38 $\pi^- p \rightarrow \eta\eta' n$ |

| $\Gamma(K_S^0 K_S^0)/\Gamma(\eta\eta')$ | Γ_3/Γ_6 |
|---|---|
| <u>VALUE</u> <u>CL%</u> | <u>DOCUMENT ID</u> <u>TECN</u> <u>COMMENT</u> |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | |
| <0.066 90 | BALOSHIN 86 SPEC 40 $\pi p \rightarrow K_S^0 K_S^0 n$ |

| $\Gamma(\eta\eta)/\Gamma(\eta\eta')$ | Γ_4/Γ_6 |
|---|--|
| <u>VALUE</u> <u>CL%</u> | <u>DOCUMENT ID</u> <u>TECN</u> <u>COMMENT</u> |
| • • • We do not use the following data for averages, fits, limits, etc. • • • | |
| <0.05 90 | ALDE 91B GAM2 38 $\pi^- p \rightarrow \eta\eta' n$ |

$\Gamma(\omega\omega)/\Gamma(\eta\eta')$ Γ_5/Γ_6

VALUE DOCUMENT ID COMMENT

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

2.6 ± 0.6 BARBERIS 00F 450 $pp \rightarrow p_f \omega \omega p_S$

$\Gamma(\eta'\eta')/\Gamma_{\text{total}}$ Γ_7/Γ

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 $\pi^- p \rightarrow \eta' \eta' n$

$\Gamma(\rho\rho)/\Gamma(\omega\omega)$ Γ_8/Γ_5

VALUE DOCUMENT ID COMMENT

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

2.6 ± 0.4 BARBERIS 00F 450 $pp \rightarrow p_f \omega \omega p_S$

$\Gamma(f_2(1270)\eta)/\Gamma(a_2(1320)\pi)$ Γ_{10}/Γ_9

VALUE DOCUMENT ID TECN COMMENT

0.09 ± 0.05 ⁵ ANISOVICH 11 SPEC 0.9–1.94 $p\bar{p}$

⁵ Reanalysis of ADOMEIT 96 and ANISOVICH 00E.

$f_2(1910)$ REFERENCES

| | | | | |
|-----------|-----|------------------------------|------------------------------|---------------------------|
| 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> | (CBAR 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> | |
| 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. | | |