

**$f_2(1640)$** 

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

OMITTED FROM SUMMARY TABLE

 **$f_2(1640)$  MASS**

| <u>VALUE (MeV)</u>  | <u>DOCUMENT ID</u>                  | <u>TECN</u> | <u>COMMENT</u>   |
|---|-------------------------------------|-------------|--|
| <b><math>1639 \pm 6</math> OUR AVERAGE</b>                                    | Error includes scale factor of 1.2. |             |  |
| $1620 \pm 16$   | BUGG                                | 95          | MRK3 $J/\psi \rightarrow \gamma \pi^+ \pi^- \pi^+ \pi^-$ |
| $1647 \pm 7$  | ADAMO                               | 92          | OBLX $\bar{n} p \rightarrow 3\pi^+ 2\pi^-$               |
| $1635 \pm 7$  | ALDE                                | 90          | GAM2 $38 \pi^- p \rightarrow \omega \omega n$            |
| • • • We do not use the following data for averages, fits, limits, etc. • • • |                                     |             |  |
| $1640 \pm 5$  | AMSLER                              | 06          | CBAR $0.9 \bar{p} p \rightarrow K^+ K^- \pi^0$           |
| $1659 \pm 6$  | VLADIMIRSK...06                     | SPEC        | 40 $\pi^- p \rightarrow K_S^0 K_S^0 n$                   |
| $1643 \pm 7$  | <sup>1</sup> ALDE                   | 89B         | GAM2 $38 \pi^- p \rightarrow \omega \omega n$            |
| <sup>1</sup> Superseded by ALDE 90.   |                                     |             |  |

 **$f_2(1640)$  WIDTH**

| <u>VALUE (MeV)</u>  | <u>CL%</u> | <u>DOCUMENT ID</u>                  | <u>TECN</u> | <u>COMMENT</u>   |
|---|------------|-------------------------------------|-------------|--|
| <b><math>99^{+60}_{-40}</math> OUR AVERAGE</b>                                |            | Error includes scale factor of 2.9. |             |  |
| $140^{+60}_{-20}$   |            | BUGG                                | 95          | MRK3 $J/\psi \rightarrow \gamma \pi^+ \pi^- \pi^+ \pi^-$ |
| $58 \pm 20$   |            | ADAMO                               | 92          | OBLX $\bar{n} p \rightarrow 3\pi^+ 2\pi^-$               |
| • • • We do not use the following data for averages, fits, limits, etc. • • • |            |                                     |             |  |
| $44 \pm 9$  |            | AMSLER                              | 06          | CBAR $0.9 \bar{p} p \rightarrow K^+ K^- \pi^0$           |
| $152 \pm 18$  |            | VLADIMIRSK...06                     | SPEC        | 40 $\pi^- p \rightarrow K_S^0 K_S^0 n$                   |
| $< 70$  | 90         | ALDE                                | 90          | GAM2 $38 \pi^- p \rightarrow \omega \omega n$            |

 **$f_2(1640)$  DECAY MODES**

| Mode                       | Fraction ( $\Gamma_i/\Gamma$ ) |
|----------------------------|--------------------------------|
| $\Gamma_1$ $\omega \omega$ | seen                           |
| $\Gamma_2$ $4\pi$          | seen                           |
| $\Gamma_3$ $K \bar{K}$     | seen                           |

 **$f_2(1640)$  BRANCHING RATIOS**

| $\Gamma(K \bar{K})/\Gamma_{\text{total}}$ | $\Gamma_3/\Gamma$  |             |  |
|---|--------------------|-------------|--|
| <u>VALUE</u>                              | <u>DOCUMENT ID</u> | <u>TECN</u> | <u>COMMENT</u>                                 |
| seen                                      | AMSLER             | 06          | CBAR $0.9 \bar{p} p \rightarrow K^+ K^- \pi^0$ |

## $f_2(1640)$ REFERENCES

|               |     |                             |                               |                                 |
|---------------|-----|-----------------------------|-------------------------------|---------------------------------|
| AMSLER        | 06  | PL B639 165                 | C. Amsler <i>et al.</i>       | (Crystal Barrel Collab.)        |
| VLADIMIRSK... | 06  | PAN 69 493                  | V.V. Vladimisky <i>et al.</i> | (ITEP, Moscow)                  |
|               |     | Translated from YAF 69 515. |                               |                                 |
| BUGG          | 95  | PL B353 378                 | D.V. Bugg <i>et al.</i>       | (LOQM, PNPI, WASH) JP           |
| ADAMO         | 92  | PL B287 368                 | A. Adamo <i>et al.</i>        | (OBELIX Collab.)                |
| ALDE          | 90  | PL B241 600                 | D.M. Alde <i>et al.</i>       | (SERP, BELG, LANL, LAPP+)       |
| ALDE          | 89B | PL B216 451                 | D.M. Alde <i>et al.</i>       | (SERP, BELG, LANL, LAPP+) IGJPC |

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