

**$f_2(1950)$**

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

OMITTED FROM SUMMARY TABLE  
Needs confirmation.

**$f_2(1950)$  MASS**

VALUE (MeV)	DOCUMENT ID	TECN	CHG	COMMENT
<b>1960±30</b>	<sup>1</sup> BARBERIS	97B	OMEG	450 $pp \rightarrow pp2(\pi^+\pi^-)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1940±50	BAI	00	BES	$J/\psi \rightarrow \gamma(\pi^+\pi^-\pi^+\pi^-)$
1980±50	<sup>2</sup> ANISOVICH	99B	SPEC	1.35–1.94 $p\bar{p} \rightarrow \eta\eta\pi^0$
1918±12	ANTINORI	95	OMEG	300,450 $pp \rightarrow pp2(\pi^+\pi^-)$
~ 1996	HASAN	94	RVUE	$\bar{p}p \rightarrow \pi\pi$
~ 1990	<sup>3</sup> OAKDEN	94	RVUE	0.36–1.55 $\bar{p}p \rightarrow \pi\pi$
1950±15	<sup>4</sup> ASTON	91	LASS 0	11 $K^-p \rightarrow \Lambda K \bar{K} \pi\pi$

<sup>1</sup> Possibly two states.

<sup>2</sup> Using preliminary CBAR data.

<sup>3</sup> From solution B of amplitude analysis of data on  $\bar{p}p \rightarrow \pi\pi$ . See however KLOET 96 who fit  $\pi^+\pi^-$  only and find waves only up to  $J = 3$  to be important but not significantly resonant.

<sup>4</sup> Cannot determine spin to be 2.

**$f_2(1950)$  WIDTH**

VALUE (MeV)	DOCUMENT ID	TECN	CHG	COMMENT
<b>460± 40</b>	<sup>5</sup> BARBERIS	97B	OMEG	450 $pp \rightarrow pp2(\pi^+\pi^-)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$380^{+120}_{-90}$	BAI	00	BES	$J/\psi \rightarrow \gamma(\pi^+\pi^-\pi^+\pi^-)$
500±100	<sup>6</sup> ANISOVICH	99B	SPEC	1.35–1.94 $p\bar{p} \rightarrow \eta\eta\pi^0$
390± 60	ANTINORI	95	OMEG	300,450 $pp \rightarrow pp2(\pi^+\pi^-)$
~ 134	HASAN	94	RVUE	$\bar{p}p \rightarrow \pi\pi$
~ 100	<sup>7</sup> OAKDEN	94	RVUE	0.36–1.55 $\bar{p}p \rightarrow \pi\pi$
250± 50	<sup>8</sup> ASTON	91	LASS 0	11 $K^-p \rightarrow \Lambda K \bar{K} \pi\pi$

<sup>5</sup> Possibly two states.

<sup>6</sup> Using preliminary CBAR data.

<sup>7</sup> From solution B of amplitude analysis of data on  $\bar{p}p \rightarrow \pi\pi$ . See however KLOET 96 who fit  $\pi^+\pi^-$  only and find waves only up to  $J = 3$  to be important but not significantly resonant.

<sup>8</sup> Cannot determine spin to be 2.

## $f_2(1950)$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $K^*(892)\bar{K}^*(892)$	seen
$\Gamma_2$ $\pi^+\pi^-$	seen
$\Gamma_3$ $\pi^+\pi^-\pi^+\pi^-$	possibly seen
$\Gamma_4$ $a_2(1320)\pi$	
$\Gamma_5$ $f_2(1270)\pi\pi$	

## $f_2(1950)$ BRANCHING RATIOS

$\Gamma(K^*(892)\bar{K}^*(892))/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$
VALUE	DOCUMENT ID TECN CHG COMMENT
seen	ASTON 91 LASS 0 11 $K^-p \rightarrow \Lambda K \bar{K} \pi \pi$

$\Gamma(a_2(1320)\pi)/\Gamma_{\text{total}}$	$\Gamma_4/\Gamma$
VALUE	DOCUMENT ID TECN COMMENT
possibly seen	BARBERIS 97B OMEG 450 $pp \rightarrow pp2(\pi^+\pi^-)$

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

## $f_2(1950)$ REFERENCES

BAI 00 PL B472 207	J.Z. Bai <i>et al.</i>	(BES Collab.)
ANISOVICH 99B PL B449 154	A.V. Anisovich <i>et al.</i>	
BARBERIS 97B PL B413 217	D. Barberis <i>et al.</i>	(WA102 Collab.)
KLOET 96 PR D53 6120	W.M. Kloet, F. Myhrer	(RUTG, NORD)
ANTINORI 95 PL B353 589	F. Antinori <i>et al.</i>	(ATHU, BARI, BIRM+) JP
HASAN 94 PL B334 215	A. Hasan, D.V. Bugg	(LOQM)
OAKDEN 94 NPA 574 731	M.N. Oakden, M.R. Pennington	(DURH)
ASTON 91 NP B21 5 (suppl)	D. Aston <i>et al.</i>	(LASS Collab.)

## OTHER RELATED PAPERS

ALBRECHT 88N PL B212 528	H. Albrecht <i>et al.</i>	(ARGUS Collab.)
ALBRECHT 87Q PL B198 255	H. Albrecht <i>et al.</i>	(ARGUS Collab.)
ARMSTRONG 87C ZPHY C34 33	T.A. Armstrong <i>et al.</i>	(CERN, BIRM, BARI+)