$f_2(1810)$

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

OMITTED FROM SUMMARY TABLE

Needs confirmation.

$f_2(1810)$ MASS

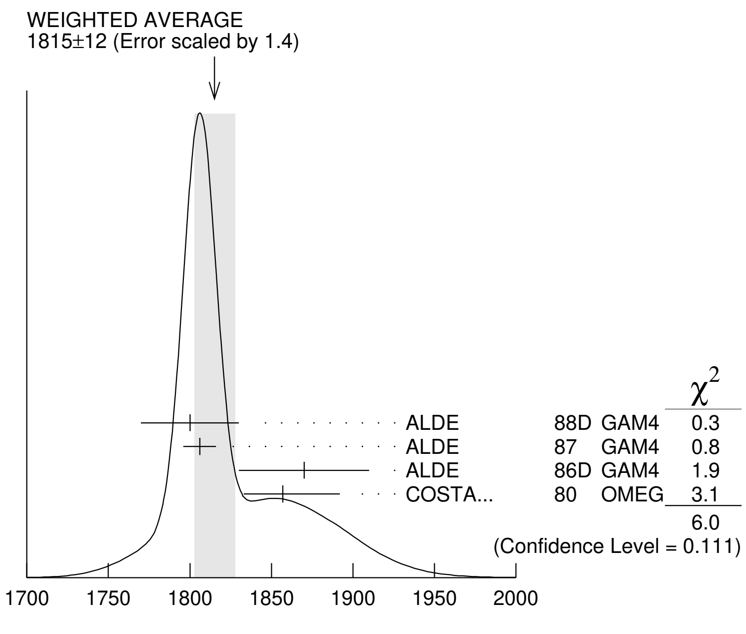
VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
1815±12 OUR AVERAGE	Error includes scale factor of 1.4. See the ideogram below.				
1800±30	40	ALDE	88D	GAM4	300 $\pi^- p \rightarrow \pi^- p 4\pi^0$
1806±10	1600	ALDE	87	GAM4	100 $\pi^- p \rightarrow 4\pi^0 n$
1870±40		[1] ALDE	86D	GAM4	100 $\pi^- p \rightarrow \eta\eta n$
1857^{+35}_{-24}		[2] COSTA...	80	OMEG	10 $\pi^- p \rightarrow K^+ K^- n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1858^{+18}_{-71}		[3] LONGACRE	86	RVUE	Compilation
1799±15		[4] CASON	82	STRC	8 $\pi^+ p \rightarrow \Delta^{++} \pi^0 \pi^0$

[1] Seen in only one solution.

[2] Error increased by spread of two solutions. Included in LONGACRE 86 global analysis.

[3] From a partial-wave analysis of data using a K-matrix formalism with 5 poles. Includes compilation of several other experiments.

[4] From an amplitude analysis of the reaction $\pi^+\pi^- \rightarrow 2\pi^0$. The resonance in the $2\pi^0$ final state not confirmed by PROKOSHKIN 94.

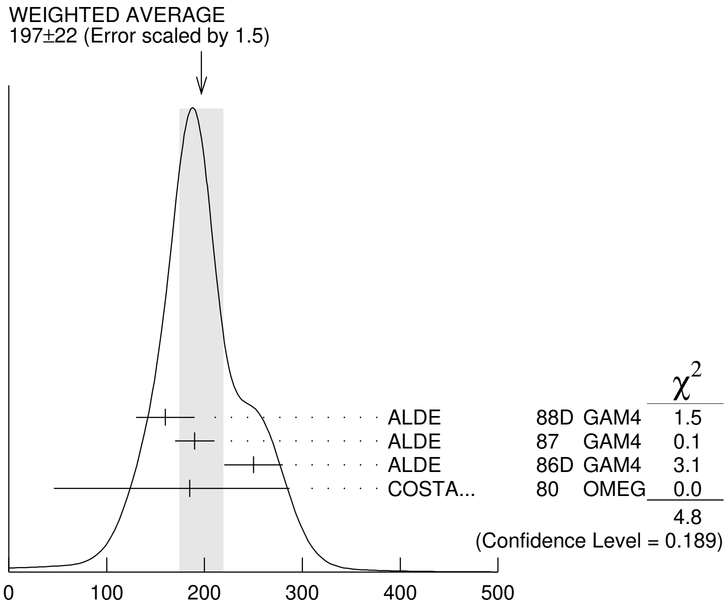


$f_2(1810)$ mass (MeV)

$f_2(1810)$ WIDTH

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
197± 22 OUR AVERAGE	Error includes scale factor of 1.5. See the ideogram below.				
160± 30	40	ALDE	88D	GAM4	300 $\pi^- p \rightarrow \pi^- p 4\pi^0$
190± 20	1600	ALDE	87	GAM4	100 $\pi^- p \rightarrow 4\pi^0 n$
250± 30		[5] ALDE	86D	GAM4	100 $\pi^- p \rightarrow \eta\eta n$
185^{+102}_{-139}		[6] COSTA...	80	OMEG	10 $\pi^- p \rightarrow K^+ K^- n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
388^{+15}_{-21}		[7] LONGACRE	86	RVUE	Compilation
280^{+42}_{-35}		[8] CASON	82	STRC	8 $\pi^+ p \rightarrow \Delta^{++} \pi^0 \pi^0$

[5] Seen in only one solution.
[6] Error increased by spread of two solutions. Included in LONGACRE 86 global analysis.
[7] From a partial-wave analysis of data using a K-matrix formalism with 5 poles. Includes compilation of several other experiments.
[8] From an amplitude analysis of the reaction $\pi^+\pi^- \rightarrow 2\pi^0$. The resonance in the $2\pi^0$ final state not confirmed by PROKOSHKIN 94.



$f_2(1810)$ width (MeV)

$f_2(1810)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\pi\pi$	
Γ_2	$\eta\eta$	
Γ_3	$4\pi^0$	seen
Γ_4	K^+K^-	

$f_2(1810)$ BRANCHING RATIOS

$\Gamma(\pi\pi)/\Gamma_{total}$ — Γ_1/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
not seen	PROKOSHKIN	97	GAM2	38 $\pi^- p \to \pi^0\pi^0 n$
$0.21^{+0.02}_{-0.03}$	[9] LONGACRE	86	RVUE	Compilation
0.44 ± 0.03	[10] CASON	82	STRC	8 $\pi^+ p \to \Delta^{++}\pi^0\pi^0$

$\Gamma(\eta\eta)/\Gamma_{total}$ — Γ_2/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.008^{+0.028}_{-0.003}$	[9] LONGACRE	86	RVUE	Compilation

$\Gamma(\pi\pi)/\Gamma(4\pi^0)$ — Γ_1/Γ_3

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<0.75	ALDE	87	GAM4	100 $\pi^- p \to 4\pi^0 n$

$\Gamma(4\pi^0)/\Gamma(\eta\eta)$ — Γ_3/Γ_2

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.8 ± 0.3	ALDE	87	GAM4	100 $\pi^- p \to 4\pi^0 n$

$\Gamma(K^+K^-)/\Gamma_{total}$ — Γ_4/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
$0.003^{+0.019}_{-0.002}$	[9] LONGACRE	86	RVUE	Compilation
seen	COSTA...	80	OMEG	10 $\pi^- p \to K^+K^- n$

[9] From a partial-wave analysis of data using a K-matrix formalism with 5 poles. Includes compilation of several other experiments.
[10] Included in LONGACRE 86 global analysis.

$f_2(1810)$ REFERENCES

PROKOSHKIN	97	SPD 42 117	+Kondashov, Sadovsky	(SERP)
		Translated from DANS 353 323.		
PROKOSHKIN	94	SPD 39 420	+Kondashov	(SERP)
		Translated from DANS 336 613.		
ALDE	88D	SJNP 47 810	+Bellazzini, Binon+	(SERP, BELG, LANL, LAPP, PISA)
		Translated from YAF 47 1273.		
ALDE	87	PL B198 286	+Binon, Bricman+	(LANL, BRUX, SERP, LAPP)
ALDE	86D	NP B269 485	+Binon, Bricman+	(BELG, LAPP, SERP, CERN, LANL)
LONGACRE	86	PL B177 223	+Etkin+	(BNL, BRAN, CUNY, DUKE, NDAM)
CASON	82	PRL 48 1316	+Biswas, Baumbaugh, Bishop+	(NDAM, ANL)
COSTA...	80	NP B175 402	Costa De Beauregard+	(BARI, BONN, CERN+)

OTHER RELATED PAPERS

AKER	91	PL B260 249	+Amsler, Peters+	(Crystal Barrel Collab.)
CASON	83	PR D28 1586	+Cannata, Baumbaugh, Bishop+	(NDAM, ANL)
ETKIN	82B	PR D25 1786	+Foley, Lai+	(BNL, CUNY, TUFTS, VAND)