$\Gamma(\omega\pi)/\Gamma_{total}$ — Γ_5/Γ

VALUE	DOCUMENT ID		TECN
$\sim$ 0.21	[11] DONNACHIE	91	RVUE

$\Gamma(\pi\pi)/\Gamma(\omega\pi)$ — Γ_1/Γ_5

VALUE	DOCUMENT ID		TECN
$\sim$ 0.24	[11] DONNACHIE	91	RVUE

$\Gamma(\phi\pi)/\Gamma_{total}$ — Γ_6/Γ

VALUE	DOCUMENT ID		TECN
<0.01	[11] DONNACHIE	91	RVUE

$\Gamma(K\overline{K})/\Gamma(\omega\pi)$ — Γ_7/Γ_5

VALUE	DOCUMENT ID		TECN
<0.08	[11] DONNACHIE	91	RVUE

[11] Using data from BISELLO 91B, DOLINSKY 86 and ALBRECHT 87L.

$\rho(1450)$ REFERENCES

BISELLO	91B	NP B21 111 (suppl)		(DM2 Collab.)
DONNACHIE	91	ZPHY C51 689	+Clegg	(MCHS, LANC)
FUKUI	91	PL B257 241	+Horikawa+	(SUGI, NAGO, KEK, KYOT, MIYA)
ARMSTRONG	89E	PL B228 536	+Benayoun	(ATHU, BARI, BIRM, CERN, CDEF, CURIN+)
BISELLO	89	PL B220 321	+Busetto+	(DM2 Collab.)
ACHASOV	88	PL B207 199	+Kozhevnikov	(NOVO)
ANTONELLI	88	PL B212 133	+Baldini+	(DM2 Collab.)
CLEGG	88	ZPHY C40 313	+Donnachie	(MCHS, LANC)
DIEKMAN	88	PRPL 159 101		(BONN)
FUKUI	88	PL B202 441	+Horikawa+	(SUGI, NAGO, KEK, KYOT, MIYA)
ALBRECHT	87L	PL B185 223	+Binder, Boeckmann, Glaser+	(ARGUS Collab.)
AULCHENKO	87B	JETPL 45 145	+Dolinsky, Druzhinin, Dubrovin+	(NOVO)
		Translated from ZETFP 45 118.		
BITYUKOV	87	PL B188 383	+Dzhelyadin, Dorofeev, Golovkin+	(SERP)
DONNACHIE	87	ZPHY C33 407	+Mirzaie	(MCHS)
DONNACHIE	87B	ZPHY C34 257	+Clegg	(MCHS, LANC)
DOLINSKY	86	PL B174 453	+Druzhinin, Dubrovin, Eidelman+	(NOVO)
ASTON	80C	PL 92B 211		(BONN, CERN, EPOL, GLAS, LANC, MCHS+)
BARBER	80C	ZPHY C4 169	+Dainton, Brodbeck, Brookes+	(DARE, LANC, SHEF)

OTHER RELATED PAPERS

LANDSBERG	92	SJNP 55 1051		(SERP)
		Translated from YAF 55 1896.		
BRAU	88	PR D37 2379	+Franek+	(SLAC Hybrid Facility Photon Collab.)
ASTON	87	NP B292 693	+Awaji, D'Amore+	(SLAC, NAGO, CINC, INUS)
KURDADZE	86	JETPL 43 643	+Lelchuk, Pakhtusova, Sidorov, Skrinskii+	(NOVO)
		Translated from ZETFP 43 497.		
BARKOV	85	NP B256 365	+Chilingarov, Eidelman, Khazin, Lelchuk+	(NOVO)
BISELLO	85	LAL 85-15	+Augustin, Ajaltouni+	(PADO, LALO, CLER, FRAS)
ABE	84B	PRL 53 751	+Bacon, Ballam+	(SLAC Hybrid Facility Photon Collab.)
ATKINSON	84C	NP B243 1	+	(BONN, CERN, GLAS, LANC, MCHS, CURIN+)
CORDIER	82	PL 109B 129	+Bisello, Bizot, Buon, Delcourt	(LALO)
KILLIAN	80	PR D21 3005	+Treadwell, Ahrens, Berkelman, Cassel+	(CORN)
COSME	76	PL 63B 352	+Courau, Dudelzak, Grelaud, Jean-Marie+	(ORSAY)
BINGHAM	72B	PL 41B 635	+Rabin, Rosenfeld, Smadja+	(LBL, UCB, SLAC)
FRENKIEL	72	NP B47 61	+Ghesquiere, Lillestol, Chung+	(CDEF, CERN)
LAYSSAC	71	NC 6A 134	+Renard	(MONP)

$f_1(1510)$

$I^G(J^{PC}) = 0^+(1^{++})$

See also minireview under non-$q\overline{q}$ candidates.

$f_1(1510)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
1512 ± 4	600±200	[1] BIRMAN	88	MPS	8 $\pi^- p \to K^+\overline{K}^0\pi^- n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
$\sim$ 1525		[2] BAUER	93B		$\gamma\gamma^* \to \pi^+\pi^-\pi^0\pi^0$
1530 ±10		ASTON	88C	LASS	11 $K^- p \to K^0_S K^\pm\pi^\mp\Lambda$
1526.0± 6.0	271	GAVILLET	82	HBC	4.2 $K^- p \to \Lambda K K\pi$

[1] From partial wave analysis of $K^+\overline{K}^0\pi^-$ state.
[2] Possibly a different resonance than that seen in $K\overline{K}\pi$, isospin and spin uncertain.

$f_1(1510)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
35 ±15	600±200	[3] BIRMAN	88	MPS	8 $\pi^- p \to K^+\overline{K}^0\pi^- n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
100 ±40		ASTON	88C	LASS	11 $K^- p \to K^0_S K^\pm\pi^\mp\Lambda$
107.0±15.0	271	GAVILLET	82	HBC	4.2 $K^- p \to \Lambda K K\pi$

[3] From partial wave analysis of $K^+\overline{K}^0\pi^-$ state.

$f_1(1510)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$K\overline{K}^*(892)$+ c.c.	seen

$f_1(1510)$ REFERENCES

BAUER	93B	PR D48 3976	+Belcinski, Berg, Bingham+	(SLAC)
ASTON	88C	PL B201 573	+Awaji, Bienz+	(SLAC, NAGO, CINC, INUS) JP
BIRMAN	88	PRL 61 1557	+Chung, Peaslee+	(BNL, FSU, IND, MASD) JP
GAVILLET	82	ZPHY C16 119	+Armenteros+	(CERN, CDEF, PADO, ROMA)

$f_2(1520)$

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

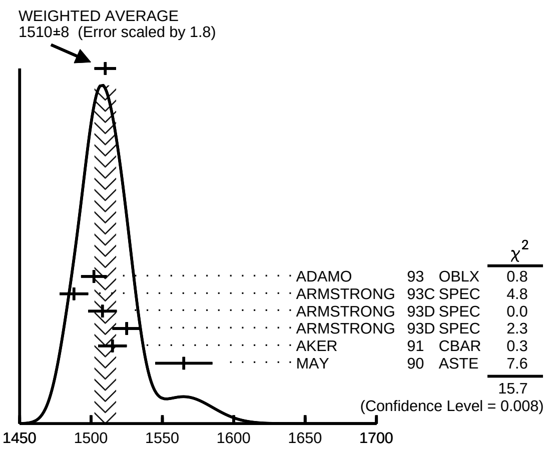
OMITTED FROM SUMMARY TABLE

Seen in antiproton-nucleon annihilation at rest. See also minireview under non-$q\overline{q}$ candidates. Needs confirmation.

$f_2(1520)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
1510± 8 OUR AVERAGE Error includes scale factor of 1.8. See the ideogram below.						
1502± 9		[1] ADAMO	93	OBLX		$\overline{n}p \to \pi^+\pi^+\pi^-$
1488±10		ARMSTRONG	93C	SPEC		$\overline{p}p \to \pi^0\eta\eta \to 6\gamma$
1508±10		ARMSTRONG	93D	SPEC		$\overline{p}p \to 3\pi^0 \to 6\gamma$
1525±10		ARMSTRONG	93D	SPEC		$\overline{p}p \to \eta\pi^0\pi^0 \to 6\gamma$
1515±10		AKER	91	CBAR		0.0 $\overline{p}p \to 3\pi^0$
1565±20		MAY	90	ASTE		$\overline{p}p \to \pi^+\pi^-\pi^0$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
1566^{+80}_{-50}		[2] ANISOVICH	94	CBAR		0.0 $\overline{p}p \to 3\pi^0, \eta\eta\pi^0$
1527± 5	435±45	[3] GRAY	83	DBC	0	0.0 $\overline{p}N \to 3\pi$

[1] Supersedes ADAMO 92.
[2] From a simultanious analysis of the annihilations $\overline{p}p \to 3\pi^0, \pi^0\eta\eta$ including AKER 91 data.
[3] No fit of the Dalitz plot has been made. J=0 is cautiously suggested, but J=2 is not excluded.



$f_2(1520)$ mass (MeV)

$f_2(1520)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	CHG	COMMENT
120± 5 OUR AVERAGE						
130±10		[4] ADAMO	93	OBLX		$\overline{n}p \to \pi^+\pi^+\pi^-$
148±27		ARMSTRONG	93C	SPEC		$\overline{p}p \to \pi^0\eta\eta \to 6\gamma$
103±15		ARMSTRONG	93D	SPEC		$\overline{p}p \to 3\pi^0 \to 6\gamma$
111±10		ARMSTRONG	93D	SPEC		$\overline{p}p \to \eta\pi^0\pi^0 \to 6\gamma$
120±10		AKER	91	CBAR		0.0 $\overline{p}p \to 3\pi^0$
170±40		MAY	90	ASTE		$\overline{p}p \to \pi^+\pi^-\pi^0$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
166^{+80}_{-20}		[5] ANISOVICH	94	CBAR		0.0 $\overline{p}p \to 3\pi^0, \eta\eta\pi^0$
101±19	435±45	[6,7] GRAY	83	DBC	0	0.0 $\overline{p}N \to 3\pi$

[4] Supersedes ADAMO 92.
[5] From a simultanious analysis of the annihilations $\overline{p}p \to 3\pi^0, \pi^0\eta\eta$ including AKER 91 data.
[6] No fit of the Dalitz plot has been made.
[7] Width error enlarged by us to $4\Gamma/N^{1/2}$.