Further States

NODE=M300

OMITTED FROM SUMMARY TABLE

This section contains states observed by a single group or states poorly established that thus need confirmation. Publications that exclude earlier claims in this section are listed under 'Other Related Papers.'

NODE=M300

QUANTUM NUMBERS, MASSES, WIDTHS, AND BRANCHING RATIOS

X(1070) $I^G(J^{PC}) = ?^?(0^{++})$

NODE=M300J07
NODE=M300J07

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		COMMENT
1072.4 ± 0.8	$3.5^{+1.5}_{-1.0}$	GRIGOR'EV	05	$40\ \pi^- p \to K^0_S K^0_S n$

X(1110) $I^G(J^{PC}) = 0^+(\text{even}^{++})$

NODE=M300J30
NODE=M300J30

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1107 ± 4	$111 \pm 8 \pm 15$	DAFTARI	87	DBC	$0.\ \overline{p} n \to \rho^- \pi^+ \pi^-$

f_0(1200–1600) $I^G(J^{PC}) = 0^+(0^{++})$

NODE=M300J98
NODE=M300J98

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1323 ± 8	237 ± 20	VLADIMIRSK...	06	SPEC	$40\ \pi^- p \to K^0_S K^0_S n$
1480^{+100}_{-150}	1030^{+80}_{-170}	[1] ANISOVICH	03	SPEC	
1530^{+90}_{-250}	560 ± 40	[2] ANISOVICH	03	SPEC	

OCCUR=2

[1] K-matrix pole from combined analysis of $\pi^- p \to \pi^0 \pi^0 n$, $\pi^- p \to K \overline{K} n$, $\pi^+ \pi^- \to \pi^+ \pi^-$, $\overline{p} p \to \pi^0 \pi^0 \pi^0$, $\pi^0 \eta \eta$, $\pi^0 \pi^0 \eta$, $\pi^+ \pi^- \pi^0$, $K^+ K^- \pi^0$, $K^0_S K^0_S \pi^0$, $K^+ K^0_S \pi^-$ at rest, $\overline{p} n \to \pi^- \pi^- \pi^+$, $K^0_S K^- \pi^0$, $K^0_S K^0_S \pi^-$ at rest.

NODE=M300;LINKAGE=KM

[2] K-matrix pole from combined analysis of $\pi^- p \to \pi^0 \pi^0 n$, $\pi^- p \to K \overline{K} n$, $\overline{p} p \to \pi^0 \pi^0 \pi^0$, $\pi^0 \eta \eta$, $\pi^0 \pi^0 \eta$ at rest.

NODE=M300;LINKAGE=MK

X(1420) $I^G(J^{PC}) = 2^+(0^{++})$

NODE=M300J61
NODE=M300J61

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1420 ± 20	160 ± 10	FILIPPI	00	OBLX	$0\ \overline{n} p \to \pi^+ \pi^+ \pi^-$

X(1545) $I^G(J^{PC}) = ?^?(?^{?+})$

NODE=M300K07
NODE=M300K07

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1544.7 ± 3.0	10.3 ± 3.0	VLADIMIRSKII	00	SPEC	$40\ \pi^- p \to K^0_S K^0_S X$

X(1575) $I^G(J^{PC}) = ?^?(1^{--})$

NODE=M300J08
NODE=M300J08

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
$1576^{+49}_{-55}{}^{+98}_{-91}$	$818^{+22}_{-23}{}^{+64}_{-133}$	[3] ABLIKIM	06S	BES	$J/\psi \to K^+ K^- \pi^0$

[3] A broad peak observed at $K^+ K^-$ invariant mass. Mass and width above are its pole position. The observed branching ratio is $B(J/\psi \to X \pi^0)\ B(X \to K^+ K^-) = (8.5 \pm 0.6^{+2.7}_{-3.6}) \times 10^{-4}$.

NODE=M300J08;LINKAGE=AB

X(1600) $I^G(J^{PC}) = 2^+(2^{++})$

NODE=M300J99
NODE=M300J99

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1600 ± 100	400 ± 200	[4] ALBRECHT	91F	ARG	$10.2\ e^+ e^- \to e^+ e^- 2(\pi^+ \pi^-)$

[4] Our estimate. NODE=M300J99;LINKAGE=A

X(1650) $I^G(J^{PC}) = 0^-(?^{?-})$ NODE=M300J62

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
1652±7	<50	100	PROKOSHKIN 96	GAM2	32,38 $\pi p \rightarrow \omega\eta n$

X(1730) $I^G(J^{PC}) = ?^?(?^{?+})$ NODE=M300K06

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
1731.0±1.2±2.0	3.2 ± 0.8 ± 1.3	58	VLADIMIRSK...07	SPEC	40 $\pi^- p \rightarrow K^0_S K^0_S X$

X(1750) $I^G(J^{PC}) = ?^?(1^{--})$ NODE=M300J94

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID	TECN	COMMENT
1753.5±1.5±2.3	122.2 ± 6.2 ± 8.0	LINK 02K	FOCS	20–160 $\gamma p \rightarrow K^+ K^- p$

$B(X(1750) \rightarrow \overline{K}^*(892)^0 K^0 \rightarrow K^\pm \pi^\mp K^0_S)/B(X(1750) \rightarrow K^+ K^-)$ NODE=M300B5

VALUE	CL%	DOCUMENT ID	TECN
<0.065	90	LINK 02K	FOCS

$B(X(1750) \rightarrow \overline{K}^*(892)^\pm K^\mp \rightarrow K^\pm \pi^\mp K^0_S)/B(X(1750) \rightarrow K^+ K^-)$ NODE=M300B6

VALUE	CL%	DOCUMENT ID	TECN
<0.183	90	LINK 02K	FOCS

f_2(1750) $I^G(J^{PC}) = 0^+(2^{++})$ NODE=M300JAM

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
1755±10	67 ± 12	870	[5] SCHEGELSKY 06A	RVUE	$\gamma\gamma \rightarrow K^0_S K^0_S$

$\Gamma(K\overline{K})$ NODE=M300JA1

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
17±5	870	[6] SCHEGELSKY 06A	RVUE	$\gamma\gamma \rightarrow K^0_S K^0_S$

$\Gamma(\gamma\gamma)$ NODE=M300JA2

VALUE (keV)	EVTS	DOCUMENT ID	TECN	COMMENT
0.13±0.04	870	[6] SCHEGELSKY 06A	RVUE	$\gamma\gamma \rightarrow K^0_S K^0_S$

$\Gamma(\pi\pi)$ NODE=M300JA3

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
1.3±1.0	870	[6] SCHEGELSKY 06A	RVUE	$\gamma\gamma \rightarrow K^0_S K^0_S$

$\Gamma(\eta\eta)$ NODE=M300JA4

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2.0±0.5	870	[6] SCHEGELSKY 06A	RVUE	$\gamma\gamma \rightarrow K^0_S K^0_S$

[5] From analysis of L3 data at 91 and 183–209 GeV. NODE=M300JAM;LINKAGE=SC
[6] From analysis of L3 data at 91 and 183–209 GeV and using SU(3) relations. NODE=M300JA;LINKAGE=SC

X(1775) $I^G(J^{PC}) = 1^-(?^{-+})$ NODE=M300J60

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID	TECN	COMMENT
1763±20	192 ± 60	CONDO 91	SHF	$\gamma p \rightarrow (p\pi^+)(\pi^+\pi^-\pi^-)$
1787±18	118 ± 60	CONDO 91	SHF	$\gamma p \rightarrow n\pi^+\pi^+\pi^-$ OCCUR=2

X(1855) $I^G(J^{PC}) = ?^?(?^{??})$ NODE=M300J31

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID	TECN	COMMENT
1856.6±5	20 ± 5	BRIDGES 86D	SPEC	0. $\overline{p} d \rightarrow \pi\pi N$

X(1870) $I^G(J^{PC}) = ?^?(2^{??})$ NODE=M300J45

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID	TECN	COMMENT
1870±40	250 ± 30	ALDE 86D	GAM4	100 $\pi^- p \rightarrow 2\eta X$

a_3(1875) $I^G(J^{PC}) = 1^-(3^{++})$ NODE=M300J95

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID	TECN	COMMENT
1874±43±96	385 ± 121 ± 114	CHUNG 02	B852	18.3 $\pi^- p \rightarrow \pi^+\pi^-\pi^- p$

$B(a_3(1875) \to f_2(1270)\pi)/B(a_3(1875) \to \rho\pi)$ NODE=M300B7

VALUE	DOCUMENT ID		TECN	COMMENT
0.8±0.2	[7] CHUNG	02	B852	18.3 $\pi^- p \to \pi^+\pi^-\pi^- p$

[7] Using the observable fractions of 50.0% $\rho\pi$, 56.5% $f_2\pi$, and 11.8% $\rho_3\pi$. NODE=M300B;LINKAGE=C1

$B(a_3(1875) \to \rho_3(1690)\pi)/B(a_3(1875) \to \rho\pi)$ NODE=M300B8

VALUE	DOCUMENT ID		TECN	COMMENT
0.9±0.3	[8] CHUNG	02	B852	18.3 $\pi^- p \to \pi^+\pi^-\pi^- p$

[8] Using the observable fractions of 50.0% $\rho\pi$, 56.5% $f_2\pi$, and 11.8% $\rho_3\pi$. NODE=M300B8;LINKAGE=C1

$a_1(1930)$ $I^G(J^{PC}) = 1^-(1^{++})$ NODE=M300J92

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1930^{+30}_{-70}	155 ± 45	ANISOVICH	01F	SPEC	2.0 $\overline{p}p \to 3\pi^0$, $\pi^0\eta$, $\pi^0\eta'$

$X(1935)$ $I^G(J^{PC}) = 1^+(1^{-?})$ NODE=M300J33

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1935±20	215 ± 30	EVANGELIS...	79	OMEG	10,16 $\pi^- p \to \overline{p}pn$

$\rho_2(1940)$ $I^G(J^{PC}) = 1^+(2^{--})$ NODE=M300J85

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1940±40	155 ± 40	[9] ANISOVICH	02	SPEC	0.6–1.9 $p\overline{p} \to \omega\pi^0$, $\omega\eta\pi^0$, $\pi^+\pi^-$

[9] From the combined analysis of ANISOVICH 00J, ANISOVICH 01D, ANISOVICH 01E, and ANISOVICH 02. NODE=M300J85;LINKAGE=AY

$\omega_3(1945)$ $I^G(J^{PC}) = 0^-(3^{--})$ NODE=M300J65

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1945±20	115 ± 22	[10] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \to \omega\eta$, $\omega\pi^0\pi^0$

[10] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B. NODE=M300J65;LINKAGE=AZ

$\omega(1960)$ $I^G(J^{PC}) = 0^-(1^{--})$ NODE=M300J79

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1960±25	195 ± 60	[11] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \to \omega\eta$, $\omega\pi^0\pi^0$

[11] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B. NODE=M300J79;LINKAGE=AZ

$b_1(1960)$ $I^G(J^{PC}) = 1^+(1^{+-})$ NODE=M300J67

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1960±35	230 ± 50	[12] ANISOVICH	02	SPEC	0.6–1.9 $p\overline{p} \to \omega\pi^0$, $\omega\eta\pi^0$, $\pi^+\pi^-$

[12] From the combined analysis of ANISOVICH 00J, ANISOVICH 01D, ANISOVICH 01E, and ANISOVICH 02. NODE=M300J67;LINKAGE=AY

$h_1(1965)$ $I^G(J^{PC}) = 0^-(1^{+-})$ NODE=M300J64

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1965±45	345 ± 75	[13] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \to \omega\eta$, $\omega\pi^0\pi^0$

[13] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B. NODE=M300J64;LINKAGE=AZ

$f_1(1970)$ $I^G(J^{PC}) = 0^+(1^{++})$ NODE=M300J1

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
1971±15	240 ± 45	ANISOVICH	00J	SPEC

$X(1970)$ $I^G(J^{PC}) = ?^?(?^{??})$ NODE=M300J46

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1970±10	40 ± 20	CHLIAPNIK...	80	HBC	32 $K^+ p \to 2K^0_S 2\pi X$

$X(1975)$ $I^G(J^{PC}) = ?^?(?^{??})$

NODE=M300J47
NODE=M300J47

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
1973 ± 15	80	30	CASO	70	HBC	$11.2\ \pi^- p \to \rho 2\pi$

$\omega_2(1975)$ $I^G(J^{PC}) = 0^-(2^{--})$

NODE=M300J81
NODE=M300J81

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
1975 ± 20	175 ± 25	[14] ANISOVICH	02B	SPEC	0.6–$1.9\ p\overline{p} \to \omega\eta,\ \omega\pi^0\pi^0$

[14] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B.

NODE=M300J81;LINKAGE=AZ

$a_2(1990)$ $I^G(J^{PC}) = 1^-(2^{++})$

NODE=M300J2
NODE=M300J2

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
$2050\pm10\pm40$	$190 \pm 22 \pm 100$	18k	[15] SCHEGELSKY	06	RVUE	$\gamma\gamma \to \pi^+\pi^-\pi^0$
$2003\pm10\pm19$	$249 \pm 23 \pm 32$		LU	05	B852	$18\ \pi^- p \to \omega\pi^-\pi^0 p$
1990^{+15}_{-30}	190 ± 50		ANISOVICH	99C	SPEC	

[15] From analysis of L3 data at 183–209 GeV.

NODE=M300J2;LINKAGE=SC

$\Gamma(\gamma\gamma)\ \Gamma(\pi^+\pi^-\pi^0)\ /\ \Gamma(\text{total})$

NODE=M300J2G
NODE=M300J2G

VALUE (keV)	EVTS	DOCUMENT ID		TECN	COMMENT
$0.11\pm0.04\pm0.05$	18k	[16] SCHEGELSKY	06	RVUE	$\gamma\gamma \to \pi^+\pi^-\pi^0$

[16] From analysis of L3 data at 183–209 GeV.

NODE=M300J2G;LINKAGE=SC

$\rho(2000)$ $I^G(J^{PC}) = 1^+(1^{--})$

NODE=M300J77
NODE=M300J77

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2000 ± 30	260 ± 45	[17] BUGG	04C	RVUE

[17] From the combined analysis of ANISOVICH 00J, ANISOVICH 01D, ANISOVICH 01E, and ANISOVICH 02.

NODE=M300;LINKAGE=AY

$f_2(2000)$ $I^G(J^{PC}) = 0^+(2^{++})$

NODE=M300J25
NODE=M300J25

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2001 ± 10	312 ± 32	ANISOVICH	00J	SPEC

$X(2000)$ $I^G(J^{PC}) = 1^-(?^{?+})$

NODE=M300K01
NODE=M300K01

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	CHG	COMMENT
1964 ± 35	225 ± 50	[18] ARMSTRONG	93D	E760		$\overline{p}p \to 3\pi^0 \to 6\gamma$
~ 2100	~ 500	[18] ANTIPOV	77	CIBS	$-$	$25\ \pi^- p \to p\pi^-\rho_3$
2214 ± 15	355 ± 21	[19] BALTAY	77	HBC	0	$15\ \pi^- p \to \Delta^{++}3\pi$
2080 ± 40	340 ± 80	KALELKAR	75	HBC	$+$	$15\ \pi^+ p \to p\pi^+\rho_3$

[18] Cannot determine spin to be 3.

NODE=M300K01;LINKAGE=AA

[19] BALTAY 77 favors $J^P = ,3^+$.

NODE=M300K01;LINKAGE=B

$X(2000)$ $I^G(J^{PC}) = ?^?(4^{++})$

NODE=M300J97
NODE=M300J97

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID	TECN	COMMENT
$1998\pm3\pm5$	<15	VLADIMIRSK...03	SPEC	$\pi^- p \to K^0_S K^0_S MM$

$\pi_2(2005)$ $I^G(J^{PC}) = 1^-(2^{-+})$

NODE=M300J71
NODE=M300J71

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
$1974\pm14\pm83$	$341 \pm 61 \pm 139$	145k	LU	05	B852	$18\ \pi^- p \to \omega\pi^-\pi^0 p$
2005 ± 15	200 ± 40		ANISOVICH	01F	SPEC	$2.0\ \overline{p}p \to 3\pi^0,\ \pi^0\eta,\ \pi^0\eta'$

$\eta(2010)$ $I^G(J^{PC}) = 0^+(0^{-+})$

NODE=M300J5
NODE=M300J5

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2010^{+35}_{-60}	270 ± 60	ANISOVICH	00J	SPEC

$\pi_1(2015)$ $I^G(J^{PC}) = 1^-(1^{-+})$ NODE=M300J05

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
$2014\pm20\pm16$	$230\pm32\pm73$	145k	LU	05	B852	18 $\pi^- p \to \omega\pi^-\pi^0 p$
$2001\pm30\pm92$	$333\pm52\pm49$	69k	KUHN	04	B852	18 $\pi^- p \to \eta\pi^+\pi^-\pi^- p$

NODE=M300J05

$a_0(2020)$ $I^G(J^{PC}) = 1^-(0^{++})$ NODE=M300J6

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2025 ± 30	330 ± 75	ANISOVICH	99C	SPEC

NODE=M300J6

$X(2020)$ $I^G(J^{PC}) = ?^?(?^{??})$ NODE=M300J34

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2015 ± 3	10 ± 4	FERRER	99	RVUE	$\pi p \to p p \overline{p} \pi (\pi)$

NODE=M300J34

$h_3(2025)$ $I^G(J^{PC}) = 0^-(3^{+-})$ NODE=M300J78

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2025 ± 20	145 ± 30	[20] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \to \omega\eta, \omega\pi^0\pi^0$

NODE=M300J78

[20] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B. NODE=M300J78;LINKAGE=AZ

$b_3(2025)$ $I^G(J^{PC}) = 1^+(3^{+-})$ NODE=M300J69

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2032 ± 12	117 ± 11	[21] ANISOVICH	02	SPEC	0.6–1.9 $p\overline{p} \to \omega\pi^0$, $\omega\eta\pi^0$, $\pi^+\pi^-$

NODE=M300J69

[21] From the combined analysis of ANISOVICH 00J, ANISOVICH 01D, ANISOVICH 01E, and ANISOVICH 02. NODE=M300J69;LINKAGE=AY

$\eta_2(2030)$ $I^G(J^{PC}) = 0^+(2^{-+})$ NODE=M300J8

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
$2030\pm5\pm15$	$205\pm10\pm15$	ANISOVICH	00E	SPEC

NODE=M300J8

$B(a_2\pi)_{L=0}/B(a_2\pi)_{L=2}$ NODE=M300B1

VALUE	DOCUMENT ID		TECN
0.74 ± 0.17	[22] ANISOVICH	00E	SPEC

NODE=M300B1

$B(a_0\pi)/B(a_2\pi)_{L=2}$ NODE=M300B2

VALUE	DOCUMENT ID		TECN
0.072 ± 0.016	[22] ANISOVICH	00E	SPEC

NODE=M300B2

$B(f_2\eta)/B(a_2\pi)_{L=2}$ NODE=M300B3

VALUE	DOCUMENT ID		TECN
0.074 ± 0.026	[22] ANISOVICH	00E	SPEC

NODE=M300B3

[22] Corrected for all decay modes. NODE=M300;LINKAGE=A

$f_3(2050)$ $I^G(J^{PC}) = 0^+(3^{++})$ NODE=M300J7

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2048 ± 8	213 ± 34	ANISOVICH	00J	SPEC	2.0 $p\overline{p} \to \eta\pi^0\pi^0$

NODE=M300J7

$f_0(2060)$ $I^G(J^{PC}) = 0^+(0^{++})$ NODE=M300J59

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
~ 2050	~ 120	[23] OAKDEN	94	RVUE	0.36–1.55 $\overline{p}p \to \pi\pi$
~ 2060	~ 50	[23] OAKDEN	94	RVUE	0.36–1.55 $\overline{p}p \to \pi\pi$

NODE=M300J59

OCCUR=2

[23] See SEMENOV 99 and KLOET 96. NODE=M300J;LINKAGE=A

$\pi(2070)$ $I^G(J^{PC}) = 1^-(0^{-+})$ NODE=M300J91

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2070 ± 35	310^{+100}_{-50}	ANISOVICH	01F	SPEC	2.0 $\overline{p}p \to 3\pi^0$, $\pi^0\eta$, $\pi^0\eta'$

NODE=M300J91

$a_3(2070)$ $I^G(J^{PC}) = 1^-(3^{++})$

NODE=M300J9
NODE=M300J9

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2070±20	170 ± 40	ANISOVICH	99C	SPEC

$X(2075)$ $I^G(J^{PC}) = ?^?(?^{??})$

NODE=M300J01
NODE=M300J01

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2075±12±5	90 ± 35 ± 9	[24] ABLIKIM	04J	BES2	$J/\psi \to K^- p \overline{\Lambda}$

[24] From a fit in the region $M_{p\overline{\Lambda}} - M_p - M_\Lambda < 150$ MeV. S-wave in the $p\overline{\Lambda}$ system preferred.

NODE=M300J01;LINKAGE=AB

$a_2(2080)$ $I^G(J^{PC}) = 1^-(2^{++})$

NODE=M300J10
NODE=M300J10

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2060±20	195 ± 30	ANISOVICH	99C	SPEC
2100^{+10}_{-30}	$360^{+\ 40}_{-100}$	ANISOVICH	99E	SPEC

$X(2080)$ $I^G(J^{PC}) = ?^?(?^{??})$

NODE=M300J35
NODE=M300J35

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2080±10	110 ± 20	KREYMER	80	STRC	13 $\pi^- d \to p\overline{p}n(n_s)$

$X(2080)$ $I^G(J^{PC}) = ?^?(3^{-?})$

NODE=M300J37
NODE=M300J37

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2080±10	190 ± 15	ROZANSKA	80	SPRK	18 $\pi^- p \to p\overline{p}n$

$a_1(2095)$ $I^G(J^{PC}) = 1^-(1^{++})$

NODE=M300J04
NODE=M300J04

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
2096±17±121	451 ± 41 ± 81	69k	KUHN	04	B852	18 $\pi^- p \to \eta\pi^+\pi^-\pi^- p$

$B(a_1(2095) \to f_1(1285)\pi) / B(a_1(2095) \to a_1(1260))$

NODE=M300B03
NODE=M300B03

VALUE	EVTS	DOCUMENT ID		TECN	COMMENT
3.18±0.64	69k	KUHN	04	B852	18 $\pi^- p \to \eta\pi^+\pi^-\pi^- p$

$\eta(2100)$ $I^G(J^{PC}) = 0^+(0^{-+})$

NODE=M300J48
NODE=M300J48

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
2103±50	187 ± 75	586	[25] BISELLO	89B	DM2	$J/\psi \to 4\pi\gamma$

[25] ASTON 81B sees no peak, has 850 events in Ajinenko+Barth bins. ARESTOV 80 sees no peak.

NODE=M300J;LINKAGE=A1

$X(2100)$ $I^G(J^{PC}) = ?^?(0^{??})$

NODE=M300J49
NODE=M300J49

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2100±40	250 ± 40	ALDE	86D	GAM4	100 $\pi^- p \to 2\eta X$

$X(2110)$ $I^G(J^{PC}) = 1^+(3^{-?})$

NODE=M300J36
NODE=M300J36

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2110±10	330 ± 20	EVANGELIS...	79	OMEG	10,16 $\pi^- p \to \overline{p}pn$

$f_2(2140)$ $I^G(J^{PC}) = 0^+(2^{++})$

NODE=M300J50
NODE=M300J50

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
2141±12	49 ± 28	389	GREEN	86	MPSF	400 $pA \to 4KX$

$X(2150)$ $I^G(J^{PC}) = ?^?(2^{+?})$

NODE=M300J38
NODE=M300J38

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2150±10	260 ± 10	ROZANSKA	80	SPRK	18 $\pi^- p \to p\overline{p}n$

$a_2(2175)$ $I^G(J^{PC}) = 1^-(2^{++})$

NODE=M300J88
NODE=M300J88

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2175±40	310^{+90}_{-45}	ANISOVICH	01F	SPEC	2.0 $\overline{p}p \rightarrow 3\pi^0, \pi^0\eta, \pi^0\eta'$

$\eta(2190)$ $I^G(J^{PC}) = 0^+(0^{-+})$

NODE=M300J13
NODE=M300J13

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2190±50	850 ± 100	BUGG	99	BES

$\omega_2(2195)$ $I^G(J^{PC}) = 0^-(2^{--})$

NODE=M300J82
NODE=M300J82

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2195±30	225 ± 40	[26] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \rightarrow \omega\eta, \omega\pi^0\pi^0$

[26] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B.

NODE=M300J82;LINKAGE=AZ

$\omega(2205)$ $I^G(J^{PC}) = 0^-(1^{--})$

NODE=M300J80
NODE=M300J80

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2205±30	350 ± 90	[27] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \rightarrow \omega\eta, \omega\pi^0\pi^0$

[27] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B.

NODE=M300J80;LINKAGE=AZ

$X(2210)$ $I^G(J^{PC}) = ?^?(?^{??})$

NODE=M300J39
NODE=M300J39

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2210^{+79}_{-21}	203^{+437}_{-87}	EVANGELIS...	79B	OMEG	10 $\pi^- p \rightarrow K^+ K^- n$

$X(2210)$ $I^G(J^{PC}) = ?^?(?^{??})$

NODE=M300J51
NODE=M300J51

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2207±22	130	CASO	70	HBC	11.2 $\pi^- p$

$h_1(2215)$ $I^G(J^{PC}) = 0^-(1^{+-})$

NODE=M300J27
NODE=M300J27

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2215±40	325 ± 55	[28] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \rightarrow \omega\eta, \omega\pi^0\pi^0$

[28] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B.

NODE=M300J27;LINKAGE=AZ

$b_1(2240)$ $I^G(J^{PC}) = 1^+(1^{+-})$

NODE=M300J87
NODE=M300J87

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2240±35	320 ± 85	[29] ANISOVICH	02	SPEC	0.6–1.9 $p\overline{p} \rightarrow \omega\pi^0, \omega\eta\pi^0, \pi^+\pi^-$

[29] From the combined analysis of ANISOVICH 00J, ANISOVICH 01D, ANISOVICH 01E, and ANISOVICH 02.

NODE=M300J87;LINKAGE=AY

$\rho_2(2240)$ $I^G(J^{PC}) = 1^+(2^{--})$

NODE=M300J70
NODE=M300J70

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2225±35	335^{+100}_{-50}	[30] ANISOVICH	02	SPEC	0.6–1.9 $p\overline{p} \rightarrow \omega\pi^0, \omega\eta\pi^0, \pi^+\pi^-$

[30] From the combined analysis of ANISOVICH 00J, ANISOVICH 01D, ANISOVICH 01E, and ANISOVICH 02.

NODE=M300J70;LINKAGE=AY

$\rho_4(2240)$ $I^G(J^{PC}) = 1^+(4^{--})$

NODE=M300J74
NODE=M300J74

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2230±25	210 ± 30	[31] ANISOVICH	02	SPEC	0.6–1.9 $p\overline{p} \rightarrow \omega\pi^0, \omega\eta\pi^0, \pi^+\pi^-$

[31] From the combined analysis of ANISOVICH 00J, ANISOVICH 01D, ANISOVICH 01E, and ANISOVICH 02. NODE=M300J74;LINKAGE=AY

$\pi_2(2245)$ $I^G(J^{PC}) = 1^-(2^{-+})$

NODE=M300J89
NODE=M300J89

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2245 ± 60	320^{+100}_{-40}	ANISOVICH	01F	SPEC	2.0 $\overline{p}p \rightarrow 3\pi^0, \pi^0\eta, \pi^0\eta'$

$b_3(2245)$ $I^G(J^{PC}) = 1^+(3^{--})$

NODE=M300K10
NODE=M300K10

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2245 ± 50	320 ± 70	[32] BUGG	04C	RVUE

[32] From the combined analysis of ANISOVICH 00J, ANISOVICH 01D, ANISOVICH 01E, and ANISOVICH 02. NODE=M300K10;LINKAGE=AY

$\eta_2(2250)$ $I^G(J^{PC}) = 0^+(2^{-+})$

NODE=M300J17
NODE=M300J17

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2248 ± 20	280 ± 20	ANISOVICH	00I	SPEC
2267 ± 14	290 ± 50	ANISOVICH	00J	SPEC

$\pi_4(2250)$ $I^G(J^{PC}) = 1^-(4^{-+})$

NODE=M300J73
NODE=M300J73

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2250 ± 15	215 ± 25	ANISOVICH	01F	SPEC	2.0 $\overline{p}p \rightarrow 3\pi^0, \pi^0\eta, \pi^0\eta'$

$\omega_4(2250)$ $I^G(J^{PC}) = 0^-(4^{--})$

NODE=M300J84
NODE=M300J84

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2250 ± 30	150 ± 50	[33] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \rightarrow \omega\eta, \omega\pi^0\pi^0$

[33] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B. NODE=M300J84;LINKAGE=AZ

$\omega_5(2250)$ $I^G(J^{PC}) = 0^-(5^{--})$

NODE=M300K11
NODE=M300K11

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2250 ± 70	320 ± 95	[34] BUGG	04	RVUE

[34] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B. NODE=M300;LINKAGE=AZ

$\omega_3(2255)$ $I^G(J^{PC}) = 0^-(3^{--})$

NODE=M300J66
NODE=M300J66

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2255 ± 15	175 ± 30	[35] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \rightarrow \omega\eta, \omega\pi^0\pi^0$

[35] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B. NODE=M300J66;LINKAGE=AZ

$X(2260)$ $I^G(J^{PC}) = 0^+(4^{+?})$

NODE=M300J40
NODE=M300J40

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2260 ± 20	400 ± 100	EVANGELIS...	79	OMEG	10,16 $\pi^- p \rightarrow \overline{p}pn$

$\rho(2270)$ $I^G(J^{PC}) = 1^+(1^{--})$

NODE=M300J86
NODE=M300J86

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2265 ± 40	325 ± 80	[36] ANISOVICH	02	SPEC	0.6–1.9 $p\overline{p} \rightarrow \omega\pi^0, \omega\eta\pi^0, \pi^+\pi^-$
2280 ± 50	440 ± 110	ATKINSON	85	OMEG	20–70 $\gamma p \rightarrow p\omega\pi^+\pi^-\pi^0$

[36] From the combined analysis of ANISOVICH 00J, ANISOVICH 01D, ANISOVICH 01E, and ANISOVICH 02. NODE=M300J86;LINKAGE=AY

$a_1(2270)$ $I^G(J^{PC}) = 1^-(1^{++})$

NODE=M300J72
NODE=M300J72

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2270^{+55}_{-40}	305^{+70}_{-40}	ANISOVICH	01F	SPEC	2.0 $\overline{p}p \rightarrow 3\pi^0, \pi^0\eta, \pi^0\eta'$

$a_2(2270)$ $I^G(J^{PC}) = 1^-(2^{++})$

NODE=M300J15
NODE=M300J15

MASS (MeV)	*WIDTH* (MeV)	*DOCUMENT ID*		*TECN*
2265 ± 20	235^{+60}_{-35}	ANISOVICH	99C	SPEC
2280 ± 30	280 ± 50	ANISOVICH	99E	SPEC

$h_3(2275)$ $I^G(J^{PC}) = 0^-(3^{+-})$

NODE=M300J28
NODE=M300J28

MASS (MeV)	*WIDTH* (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2275 ± 25	190 ± 45	[37] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \to \omega\eta, \omega\pi^0\pi^0$

[37] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B.

NODE=M300J28;LINKAGE=AZ

$a_4(2280)$ $I^G(J^{PC}) = 1^-(4^{++})$

NODE=M300J16
NODE=M300J16

MASS (MeV)	*WIDTH* (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2300 ± 20	230 ± 40	ANISOVICH	99C	SPEC	
2260 ± 15	180 ± 20	ANISOVICH	99E	SPEC	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2237 ± 5	291 ± 12	[38] UMAN	06	E835	5.2 $\overline{p}p \to \eta\eta\pi^0$

[38] Statistical error only.

NODE=M300J16;LINKAGE=ST

$\eta(2280)$ $I^G(J^{PC}) = 0^+(0^{-+})$

NODE=M300J18
NODE=M300J18

MASS (MeV)	*WIDTH* (MeV)	*DOCUMENT ID*		*TECN*
2320 ± 15	230 ± 35	[39] ANISOVICH	00M	SPEC

[39] From the combined analysis of $\overline{p}p \to \eta\eta\eta$ from ANISOVICH 00M and $\overline{p}p \to \eta\pi^0\pi^0$ from ANISOVICH 00J.

NODE=M300;LINKAGE=B

$\omega_3(2285)$ $I^G(J^{PC}) = 0^-(3^{--})$

NODE=M300J83
NODE=M300J83

MASS (MeV)	*WIDTH* (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2278 ± 28	224 ± 50	[40] BUGG	04A	RVUE	
2285 ± 60	230 ± 40	[41] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \to \omega\eta, \omega\pi^0\pi^0$

[40] Partial wave analysis of the data on $p\overline{p} \to \overline{\Lambda}\Lambda$ from BARNES 00.

NODE=M300J83;LINKAGE=BU

[41] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B.

NODE=M300J83;LINKAGE=AZ

$\omega(2290)$ $I^G(J^{PC}) = 0^-(1^{--})$

NODE=M300J02
NODE=M300J02

MASS (MeV)	*WIDTH* (MeV)	*DOCUMENT ID*		*TECN*
2290 ± 20	275 ± 35	[42] BUGG	04A	RVUE

[42] Partial wave analysis of the data on $p\overline{p} \to \overline{\Lambda}\Lambda$ from BARNES 00.

NODE=M300J02;LINKAGE=BU

$f_3(2300)$ $I^G(J^{PC}) = 0^+(3^{++})$

NODE=M300J19
NODE=M300J19

MASS (MeV)	*WIDTH* (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2334 ± 25	200 ± 20	[43] BUGG	04A	RVUE	
2303 ± 15	214 ± 29	ANISOVICH	00J	SPEC	2.0 $p\overline{p} \to \eta\pi^0\pi^0$

[43] Partial wave analysis of the data on $p\overline{p} \to \overline{\Lambda}\Lambda$ from BARNES 00.

NODE=M300J19;LINKAGE=BU

$\rho_3(2300)$ $I^G(J^{PC}) = 1^+(3^{--})$

NODE=M300J93
NODE=M300J93

MASS (MeV)	*WIDTH* (MeV)	*DOCUMENT ID*		*TECN*
2300^{+50}_{-80}	340 ± 50	ANISOVICH	00J	SPEC

$a_3(2310)$ $I^G(J^{PC}) = 1^-(3^{++})$

NODE=M300J20
NODE=M300J20

MASS (MeV)	*WIDTH* (MeV)	*DOCUMENT ID*		*TECN*
2310 ± 40	180^{+120}_{-60}	ANISOVICH	99C	SPEC

$f_1(2310)$ $I^G(J^{PC}) = 0^+(1^{++})$

NODE=M300J23
NODE=M300J23

MASS (MeV)	*WIDTH* (MeV)	*DOCUMENT ID*		*TECN*
2310 ± 60	255 ± 70	ANISOVICH	00J	SPEC

η_4(2330) $I^G(J^{PC}) = 0^+(4^{-+})$ NODE=M300J22

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2328±38	240 ± 90	ANISOVICH	00J	SPEC	2.0 $p\overline{p} \to \eta\pi^0\pi^0$

NODE=M300J22

ω(2330) $I^G(J^{PC}) = 0^-(1^{--})$ NODE=M300J53

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2330±30	435 ± 75	ATKINSON	88	OMEG	25–50 $\gamma p \to \rho^\pm\rho^0\pi^\mp$

NODE=M300J53

a_1(2340) $I^G(J^{PC}) = 1^-(1^{++})$ NODE=M300J24

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN
2340±40	230 ± 70	ANISOVICH	99E	SPEC

NODE=M300J24

X(2340) $I^G(J^{PC}) = ?^?(?^{??})$ NODE=M300J54

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
2340±20	180 ± 60	126	[44] BALTAY	75	HBC	15 $\pi^+p \to p5\pi$

NODE=M300J54

[44] Dominant decay into $\rho^0\rho^0\pi^+$. BALTAY 78 finds confirmation in $2\pi^+\pi^-2\pi^0$ events which contain $\rho^+\rho^0\pi^0$ and $2\rho^+\pi^-$. NODE=M300J;LINKAGE=B1

π(2360) $I^G(J^{PC}) = 1^-(0^{-+})$ NODE=M300J90

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2360±25	$300^{+100}_{-\ 50}$	ANISOVICH	01F	SPEC	2.0 $\overline{p}p \to 3\pi^0, \pi^0\eta, \pi^0\eta'$

NODE=M300J90

X(2360) $I^G(J^{PC}) = ?^?(4^{+?})$ NODE=M300J42

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2360±10	430 ± 30	ROZANSKA	80	SPRK	18 $\pi^-p \to p\overline{p}n$

NODE=M300J42

X(2440) $I^G(J^{PC}) = ?^?(5^{-?})$ NODE=M300J43

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2440±10	310 ± 20	ROZANSKA	80	SPRK	18 $\pi^-p \to p\overline{p}n$

NODE=M300J43

X(2632) $I^G(J^{PC}) = ?^?(?^{??})$ NODE=M300J03

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2635.2±3.3		[45] EVDOKIMOV	04	SELX	$X(2632) \to D_s^+\eta$
2631.6±2.1	< 17	[46] EVDOKIMOV	04	SELX	$X(2632) \to D^0K^+$

NODE=M300J03

OCCUR=2

[45] From a mass difference to D_s^+ of 666.9 ± 3.3 MeV. NODE=M300J03;LINKAGE=EV

[46] From a mass difference to D^0 of 767.0 ± 2.0 MeV. NODE=M300J03;LINKAGE=ED

B(X(2632) → D^0K^+)/B(X(2632) → $D_s^+\eta$) NODE=M300B01

VALUE	DOCUMENT ID		TECN
0.14±0.06	[47] EVDOKIMOV	04	SELX

NODE=M300B01

[47] Possible interpretation of this decay pattern is discussed by YASUI 07. NODE=M300B01;LINKAGE=YA

X(2680) $I^G(J^{PC}) = ?^?(?^{??})$ NODE=M300J55

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2676±27	150	CASO	70	HBC	11.2 $\pi^-p \to \rho^-\pi^+\pi^-p$

NODE=M300J55

X(2710) $I^G(J^{PC}) = ?^?(6^{+?})$ NODE=M300J44

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2710±20	170 ± 40	ROZANSKA	80	SPRK	18 $\pi^-p \to p\overline{p}n$

NODE=M300J44

X(2750) $I^G(J^{PC}) = ?^?(7^{-?})$ NODE=M300J56

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2747±32	195 ± 75	DENNEY	83	LASS	10 $\pi^+p \to K^+K^-\pi^+p$

NODE=M300J56

X(2860) $I(J^P) = 0(?^?)$ NODE=M300K04

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT
2856.6±1.5±5.0	47 ± 7 ± 10	[48,49] AUBERT,BE	06E	BABR	$e^+e^- \to DKX$

NODE=M300K04

[48] Conventional $c\overline{s}$ nature suggested by LI 07 and ZHANG 07. NODE=M300K0;LINKAGE=LI
[49] Observed in the $D^0 K^+$ and $D^+ K^0$ final states. J^P is natural. NODE=M300K04;LINKAGE=AU

f_6(3100) $I^G(J^{PC}) = 0^+(6^{++})$ NODE=M300J06

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT	
3100±100	700 ± 130	BINON	05	GAMS	33 $\pi^- p \to \eta\eta n$	NODE=M300J06

X(3250) $I^G(J^{PC}) = ?^?(?^{??})$ 3-Body Decays NODE=M300J57

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT	
						NODE=M300J57
3250±8±20	45 ± 18	ALEEV	93	BIS2	$X(3250) \to \Lambda\overline{p}K^+$	
3265±7±20	40 ± 18	ALEEV	93	BIS2	$X(3250) \to \overline{\Lambda}pK^-$	OCCUR=2

X(3250) $I^G(J^{PC}) = ?^?(?^{??})$ 4-Body Decays NODE=M300J58

MASS (MeV)	WIDTH (MeV)	DOCUMENT ID		TECN	COMMENT	
						NODE=M300J58
3245±8±20	25 ± 11	ALEEV	93	BIS2	$X(3250) \to \Lambda\overline{p}K^+\pi^\pm$	
3250±9±20	50 ± 20	ALEEV	93	BIS2	$X(3250) \to \overline{\Lambda}pK^-\pi^\mp$	OCCUR=2
3270±8±20	25 ± 11	ALEEV	93	BIS2	$X(3250) \to K^0_S p\overline{p}K^\pm$	OCCUR=3

X(3350) $I^G(J^{PC}) = ?^?(?^{??})$ NODE=M300J09

MASS (MeV)	WIDTH (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT	
$3350^{+10}_{-20}\pm20$	$70^{+40}_{-30}\pm40$	50 ± 10	GABYSHEV	06A	BELL	$B^- \to \Lambda_c^+\overline{p}\pi^-$	NODE=M300J09

REFERENCES for Further States

NODE=M300

LI	07	EPJ C51 359	D.M. Li *et al.*		REFID=51697
VLADIMIRSK...	07	PAN 70 1706	V. Vladimirsky *et al.*		REFID=52058
		Translated from YAF 70 1751.			
YASUI	07	PR D76 034009	S. Yasui, M. Oka		REFID=51907
ZHANG	07	EPJ C50 617	B. Zhang *et al.*		REFID=51693
ABLIKIM	06S	PRL 97 142002	M. Ablikim *et al.*	(BES Collab.)	REFID=51451
AUBERT,BE	06E	PRL 97 222001	B. Aubert *et al.*	(BABAR Collab.)	REFID=51512
GABYSHEV	06A	PRL 97 242001	N. Gabyshev *et al.*	(BELLE Collab.)	REFID=51565
SCHEGELSKY	06	EPJ A27 199	V.A. Schegelsky *et al.*		REFID=51186
SCHEGELSKY	06A	EPJ A27 207	V.A. Schegelsky *et al.*		REFID=51185
UMAN	06	PR D73 052009	I. Uman *et al.*	(FNAL E835)	REFID=51063
VLADIMIRSK...	06	PAN 69 493	V.V. Vladimirsky *et al.*	(ITEP, Moscow)	REFID=51191
		Translated from YAF 69 515.			
BINON	05	PAN 68 960	F. Binon *et al.*		REFID=50780
		Translated from YAF 68 998.			
GRIGOR'EV	05	PAN 68 1271	V.K. Grigor'ev *et al.*	(ITEP)	REFID=50844
		Translated from YAF 68 1324.			
LU	05	PRL 94 032002	M. Lu *et al.*	(BNL E852 Collab.)	REFID=50459
ABLIKIM	04J	PRL 93 112002	M. Ablikim *et al.*	(BES Collab.)	REFID=50196
BUGG	04	PL B595 556 (erratum)	D.V. Bugg		REFID=49763
BUGG	04A	EPJ C36 161	D.V. Bugg		REFID=50158
BUGG	04C	PRPL 397 257	D.V. Bugg		REFID=50203
EVDOKIMOV	04	PRL 93 242001	A.V. Evdokimov *et al.*	(SELEX Collab.)	REFID=50337
KUHN	04	PL B595 109	J. Kuhn *et al.*	(BNL E852 Collab.)	REFID=49773
ANISOVICH	03	EPJ A16 229	V.V. Anisovich *et al.*		REFID=49401
VLADIMIRSK...	03	PAN 66 700	V.V. Vladimirsky *et al.*		REFID=49419
		Translated from YAF 66 729.			
ANISOVICH	02	PL B542 8	A.V. Anisovich *et al.*		REFID=48828
ANISOVICH	02B	PL B542 19	A.V. Anisovich *et al.*		REFID=48829
CHUNG	02	PR D65 072001	S.U. Chung *et al.*	(BNL E852 Collab.)	REFID=48837
LINK	02K	PL B545 50	J.M. Link *et al.*	(FNAL FOCUS Collab.)	REFID=48845
ANISOVICH	01C	PL B507 23	A.V. Anisovich *et al.*		REFID=48325
ANISOVICH	01D	PL B508 6	A.V. Anisovich *et al.*		REFID=48327
ANISOVICH	01E	PL B513 281	A.V. Anisovich *et al.*		REFID=48349
ANISOVICH	01F	PL B517 261	A.V. Anisovich *et al.*		REFID=48352
ANISOVICH	00D	PL B476 15	A.V. Anisovich *et al.*		REFID=47944
ANISOVICH	00E	PL B477 19	A.V. Anisovich *et al.*		REFID=47945
ANISOVICH	00I	PL B491 40	A.V. Anisovich *et al.*		REFID=47949
ANISOVICH	00J	PL B491 47	A.V. Anisovich *et al.*		REFID=47950
ANISOVICH	00M	PL B496 145	A.V. Anisovich *et al.*		REFID=48009
BARNES	00	PR C62 055203	P.D. Barnes *et al.*		REFID=47965
FILIPPI	00	PL B495 284	A. Filippi *et al.*	(OBELIX Experiment)	REFID=48006
VLADIMIRSKII	00	JETPL 72 486	V.V. Vladimirskii *et al.*		REFID=47997
		Translated from ZETFP 72 698.			
ANISOVICH	99C	PL B452 173	A.V. Anisovich *et al.*		REFID=46903
ANISOVICH	99E	PL B452 187	A.V. Anisovich *et al.*		REFID=46902
BUGG	99	PL B458 511	D.V. Bugg *et al.*		REFID=46938
FERRER	99	EPJ C10 249	A. Ferrer *et al.*		REFID=47404
SEMENOV	99	SPU 42 847	S.V. Semenov		REFID=47363
		Translated from UFN 42 937.			
KLOET	96	PR D53 6120	W.M. Kloet, F. Myhrer	(RUTG, NORD)	REFID=45212
PROKOSHKIN	96	SPD 41 247	Y.D. Prokoshkin, V.D. Samoilenko	(SERP)	REFID=45182
		Translated from DANS 348 481.			
OAKDEN	94	NP A574 731	M.N. Oakden, M.R. Pennington	(DURH)	REFID=45210
ALEEV	93	PAN 56 1358	A.N. Aleev *et al.*	(BIS-2 Collab.)	REFID=43668
		Translated from YAF 56 100.			

ARMSTRONG	93D	PL B307 399	T.A. Armstrong *et al.*	(FNAL, FERR, GENO+)	REFID=43596
ALBRECHT	91F	ZPHY C50 1	H. Albrecht *et al.*	(ARGUS Collab.)	REFID=41658
CONDO	91	PR D43 2787	G.T. Condo *et al.*	(SLAC Hybrid Collab.)	REFID=41588
BISELLO	89B	PR D39 701	G. Busetto *et al.*	(DM2 Collab.)	REFID=40575
ATKINSON	88	ZPHY C38 535	M. Atkinson *et al.*	(BONN, CERN, GLAS+)	REFID=40556
DAFTARI	87	PRL 58 859	I.K. Daftari *et al.*	(SYRA)	REFID=40412
ALDE	86D	NP B269 485	D.M. Alde *et al.*	(BELG, LAPP, SERP, CERN+)	REFID=20765
BRIDGES	86D	PL B180 313	D.L. Bridges *et al.*	(SYRA, BNL, CASE+)	REFID=21984
GREEN	86	PRL 56 1639	D.R. Green *et al.*	(FNAL, ARIZ, FSU+)	REFID=21872
ATKINSON	85	ZPHY C29 333	M. Atkinson *et al.*	(BONN, CERN, GLAS+)	REFID=22000
DENNEY	83	PR D28 2726	D.L. Denney *et al.*	(IOWA, MICH)	REFID=20754
ASTON	81B	NP B189 205	D. Aston *et al.*	(BONN, CERN, EPOL, GLAS+)	REFID=11553
ARESTOV	80	IHEP 80-165	Y.I. Arestov *et al.*	(SERP)	REFID=22312
CHLIAPNIK...	80	ZPHY C3 285	P.V. Chliapnikov *et al.*	(SERP, BRUX, MONS)	REFID=21996
KREYMER	80	PR D22 36	A.E. Kreymer *et al.*	(IND, PURD, SLAC+)	REFID=21970
ROZANSKA	80	NP B162 505	M. Rozanska *et al.*	(MPIM, CERN)	REFID=21774
EVANGELIS...	79	NP B153 253	C. Evangelista *et al.*	(BARI, BONN, CERN+)	REFID=21966
EVANGELIS...	79B	NP B154 381	C. Evangelista *et al.*	(BARI, BONN, CERN+)	REFID=21967
BALTAY	78	PR D17 52	C. Baltay *et al.*	(COLU, BING)	REFID=21569
ANTIPOV	77	NP B119 45	Y.M. Antipov *et al.*	(SERP, GEVA)	REFID=20728
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BALTAY	75	PRL 35 891	C. Baltay *et al.*	(COLU, BING)	REFID=21994
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CHIBA	88	PL B202 447	M. Chiba, K. Doi	(FUKI, INUS, KEK, SANG, OSAK+)	REFID=40284
CHIBA	87	PR D36 3321	M. Chiba *et al.*	(FUKI, INUS, KEK, SANG+)	REFID=40553
FRANKLIN	87	PL B184 111	J. Franklin		REFID=40006
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ADIELS	86	PL B182 405	L. Adiels *et al.*	(STOH, BASL, LASL, THES+)	REFID=21980
ANGELOPO...	86	PL B178 441	A. Angelopoulos *et al.*	(ATHU, UCI, KARLK+)	REFID=21981
ARMSTRONG	86C	PL B175 383	T.A. Armstrong *et al.*	(BNL, HOUS, PENN+)	REFID=21765
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BRIDGES	86D	PL B180 313	D.L. Bridges *et al.*	(SYRA, BNL, CASE+)	REFID=21984
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ANGELOPO...	85	PL 159B 210	A. Angelopoulos *et al.*	(ATHU, UCI, UNM+)	REFID=21977
BODENKAMP	85	NP B255 717	J. Bodenkamp *et al.*	(KARLK, KARLE, DESY)	REFID=21762
ADIELS	84	PL 138B 235	L. Adiels *et al.*	(BASL, KARLK, KARLE, STOH+)	REFID=21975
ATKINSON	84F	NP B239 1	M. Atkinson *et al.*	(BONN, CERN, GLAS+)	REFID=21998
AZOOZ	84	NP B244 277	F. Azooz, I. Butterworth	(LOIC, RHEL, SACL+)	REFID=21976
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BIONTA	80	PRL 44 909	R.M. Bionta *et al.*	(BNL, CMU, FNAL+)	REFID=40103
CARROLL	80	PRL 44 1572	A.S. Carroll *et al.*	(BNL, PRIN)	REFID=40098
DAUM	80E	PL 90B 475	C. Daum *et al.*	(AMST, CERN, CRAC, MPIM+)	REFID=21747
DEFOIX	80	NP B162 12	C. Defoix *et al.*	(CDEF, PISA)	REFID=21748
HAMILTON	80	PRL 44 1179	R.P. Hamilton *et al.*	(LBL, BNL, MTHO)	REFID=21750
HAMILTON	80B	PRL 44 1182	R.P. Hamilton *et al.*	(LBL, BNL, MTHO)	REFID=21751
KREYMER	80	PR D22 36	A.E. Kreymer *et al.*	(IND, PURD, SLAC+)	REFID=21970
ALBERI	79	PL 83B 247	G. Alberi *et al.*	(TRST, CERN, IFRJ)	REFID=21735
ARMSTRONG	79	PL B85 304	T.A. Armstrong *et al.*	(DESY, GLAS)	REFID=44641
BARTALUCCI	79	NC 49A 207	S. Bartalucci *et al.*	(DESY, FRAS)	REFID=20651
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ESPOSITO	78	LNC 22 305	B. Esposito, F. Felicetti	(FRAS, NAPL, PADO+)	REFID=40214
PAVLOPO...	78	PL 72B 415	P. Pavlopoulos *et al.*	(KARLK, KARLE, BASL+)	REFID=21965
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ALSTON-...	75	PRL 35 1685	M. Alston-Garnjost *et al.*	(LBL, MTHO)	REFID=21721
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KALOGERO...	75	PRL 34 1047	T. Kalogeropoulos, G.S. Tzanakos	(SYRA)	REFID=21722
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SABAU	71	LNC 1 514	M. Sabeu, J.L. Uretsky	(BUCH, ANL)	REFID=21991
BAUD	70	PL 31B 549	R. Baud *et al.*	(CERN Boson Spectrometer Collab.)	REFID=21989
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ALLES-...	67B	NC 50A 776	V. Alles-Borelli *et al.*	(CERN, BONN)	REFID=20036
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FOCACCI	66	PRL 17 890	M.N. Focacci *et al.*	(CERN)	REFID=20402