$X(1900–3600)$

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$X(1900–3600)$ MASSES AND WIDTHS

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

VALUE (MeV)	*DOCUMENT ID*
1900 to 3600 OUR LIMIT	

VALUE (MeV)		*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
1870 ± 40		[1] ALDE	86D	GAM4	0	100 $\pi^- p \rightarrow 2\eta X$
250 ± 30		[1] ALDE	86D	GAM4	0	100 $\pi^- p \rightarrow 2\eta X$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
1898 ± 18	100	THOMPSON	74	HBC	+	13 $\pi^+ p \rightarrow 2\rho X$
108^{+41}_{-27}	100	THOMPSON	74	HBC	+	13 $\pi^+ p \rightarrow 2\rho X$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
1900 ± 40	100	BOESEBECK	68	HBC	+	8 $\pi^+ p \rightarrow \pi^+ \pi^0 X$
216 ± 105	100	BOESEBECK	68	HBC	+	8 $\pi^+ p \rightarrow \pi^+ \pi^0 X$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
1929 ± 14	[2] FOCACCI	66	MMS	−	3–12 $\pi^- p$
22 ± 2	[2] FOCACCI	66	MMS	−	3–12 $\pi^- p$

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

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
1973 ± 15	30	CASO	70	HBC	−	11.2 $\pi^- p \rightarrow \rho 2\pi$
80	30	CASO	70	HBC	−	11.2 $\pi^- p \rightarrow \rho 2\pi$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
2070	50	TAKAHASHI	72	HBC	8 $\pi^- p \rightarrow N2\pi$
160	50	TAKAHASHI	72	HBC	8 $\pi^- p \rightarrow N2\pi$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
~ 2104		BUGG	95	MRK3		$J/\psi \rightarrow \gamma\pi^+\pi^-\pi^+\pi^-$
2103 ± 50	586	[3] BISELLO	89B	DM2		$J/\psi \rightarrow 4\pi\gamma$
187 ± 75	586	[3] BISELLO	89B	DM2		$J/\psi \rightarrow 4\pi\gamma$
2100 ± 40		[4] ALDE	86D	GAM4	0	$100\ \pi^- p \rightarrow 2\eta X$
250 ± 40		[4] ALDE	86D	GAM4	0	$100\ \pi^- p \rightarrow 2\eta X$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
2141 ± 12	389	GREEN	86	MPSF	$400\ pA \rightarrow 4KX$
49 ± 28	389	GREEN	86	MPSF	$400\ pA \rightarrow 4KX$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2190 ± 10	CLAYTON	67	HBC	$\pm$	$2.5\ \overline{p}p \rightarrow a_2,\ \omega$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2195 ± 15	[2] FOCACCI	66	MMS	$-$	$3\text{–}12\ \pi^- p$
39 ± 14	[2] FOCACCI	66	MMS	$-$	$3\text{–}12\ \pi^- p$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2207 ± 22	[5] CASO	70	HBC	$-$	$11.2\ \pi^- p$
130	[5] CASO	70	HBC	$-$	$11.2\ \pi^- p$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2280 ± 50	ATKINSON	85	OMEG	$20\text{–}70\ \gamma p \rightarrow p\omega\pi^+\pi^-\pi^0$
440 ± 110	ATKINSON	85	OMEG	$20\text{–}70\ \gamma p \rightarrow p\omega\pi^+\pi^-\pi^0$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2300 ± 100	ATKINSON	84F	OMEG	± 0	$20\text{–}70\ \gamma p \rightarrow \rho f$
~ 250	ATKINSON	84F	OMEG	± 0	$20\text{–}70\ \gamma p \rightarrow \rho f$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2330 ± 30	ATKINSON	88	OMEG	0	$25\text{–}50\ \gamma p \rightarrow \rho^\pm \rho^0 \pi^\mp$
435 ± 75	ATKINSON	88	OMEG	0	$25\text{–}50\ \gamma p \rightarrow \rho^\pm \rho^0 \pi^\mp$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2340 ± 20	126	[6] BALTAY	75	HBC	$+$	$15\ \pi^+ p \rightarrow p5\pi$
180 ± 60	126	[6] BALTAY	75	HBC	$+$	$15\ \pi^+ p \rightarrow p5\pi$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2382 ± 24	[2] FOCACCI	66	MMS	$-$	$3\text{–}12\ \pi^- p$
62 ± 6	[2] FOCACCI	66	MMS	$-$	$3\text{–}12\ \pi^- p$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2500 ± 32	ANDERSON	69	MMS	$-$	$16\ \pi^- p$ backward
87	ANDERSON	69	MMS	$-$	$16\ \pi^- p$ backward

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2620 ± 20	550	BAUD	69	MMS	–	8–10 $\pi^- p$
85 ± 30	550	BAUD	69	MMS	–	8–10 $\pi^- p$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2676 ± 27	[5] CASO	70	HBC	–	11.2 $\pi^- p$
150	[5] CASO	70	HBC	–	11.2 $\pi^- p$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*COMMENT*
2747 ± 32	DENNEY	83	LASS	10 $\pi^+ N$
195 ± 75	DENNEY	83	LASS	10 $\pi^+ N$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2800 ± 20	640	BAUD	69	MMS	–	8–10 $\pi^- p$
46 ± 10	640	BAUD	69	MMS	–	8–10 $\pi^- p$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2820 ± 10	15	[7] SABAU	71	HBC	+	8 $\pi^+ p$
50 ± 10	15	[7] SABAU	71	HBC	+	8 $\pi^+ p$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2880 ± 20	230	BAUD	69	MMS	–	8–10 $\pi^- p$
< 15	230	BAUD	69	MMS	–	8–10 $\pi^- p$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
3025 ± 20	BAUD	70	MMS	–	10.5–13 $\pi^- p$
~ 25	BAUD	70	MMS	–	10.5–13 $\pi^- p$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
3075 ± 20	BAUD	70	MMS	–	10.5–13 $\pi^- p$
~ 25	BAUD	70	MMS	–	10.5–13 $\pi^- p$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
3145 ± 20	BAUD	70	MMS	–	10.5–15 $\pi^- p$
< 10	BAUD	70	MMS	–	10.5–15 $\pi^- p$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
3475 ± 20	BAUD	70	MMS	–	14–15.5 $\pi^- p$
~ 30	BAUD	70	MMS	–	14–15.5 $\pi^- p$

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
3535 ± 20	BAUD	70	MMS	–	14–15.5 $\pi^- p$
~ 30	BAUD	70	MMS	–	14–15.5 $\pi^- p$

[1] Seen in $J = 2$ wave in one of the two ambiguous solutions.
[2] Not seen by ANTIPOV 72, who performed a similar experiment at 25 and 40 GeV/c.
[3] ASTON 81B sees no peak, has 850 events in Ajinenko+Barth bins. ARESTOV 80 sees no peak.
[4] Seen in $J = 0$ wave in one of the two ambiguous solutions.

[5] Seen in $\rho^- \pi^+ \pi^-$ (ω and η antiselected in 4π system).
[6] 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 $2\rho^+ \pi^-$.
[7] Seen in ($K \overline{K} \pi \pi$) mass distribution.

X(1900–3600) REFERENCES

BUGG	95	PL B353 378	D.V. Bugg *et al.*	(LOQM, PNPI, WASH)
BISELLO	89B	PR D39 701	G. Busetto *et al.*	(DM2 Collab.)
ATKINSON	88	ZPHY C38 535	M. Atkinson *et al.*	(BONN, CERN, GLAS+)
ALDE	86D	NP B269 485	D.M. Alde *et al.*	(BELG, LAPP, SERP, CERN+)
GREEN	86	PRL 56 1639	D.R. Green *et al.*	(FNAL, ARIZ, FSU+)
ATKINSON	85	ZPHY C29 333	M. Atkinson *et al.*	(BONN, CERN, GLAS+)
ATKINSON	84F	NP B239 1	M. Atkinson *et al.*	(BONN, CERN, GLAS+)
DENNEY	83	PR D28 2726	D.L. Denney *et al.*	(IOWA, MICH) J
ASTON	81B	NP B189 205	D. Aston *et al.*	(BONN, CERN, EPOL, GLAS+)
ARESTOV	80	IHEP 80-165	Y.I. Arestov *et al.*	(SERP)
CHLIAPNIK...	80	ZPHY C3 285	P.V. Chliapnikov *et al.*	(SERP, BRUX, MONS)
BALTAY	78	PR D17 52	C. Baltay *et al.*	(COLU, BING)
BALTAY	75	PRL 35 891	C. Baltay *et al.*	(COLU, BING)
THOMPSON	74	NP B69 220	G. Thompson *et al.*	(PURD)
ANTIPOV	72	PL 40 147	Y.M. Antipov *et al.*	(SERP)
TAKAHASHI	72	PR D6 1266	K. Takahashi *et al.*	(TOHOK, PENN, NDAM+)
SABAU	71	LNC 1 514	M. Sabeu, J.L. Uretsky	(BUCH, ANL)
BAUD	70	PL 31B 549	R. Baud *et al.*	
CASO	70	LNC 3 707	C. Caso *et al.*	(GENO, HAMB, MILA, SACL)
ANDERSON	69	PRL 22 1390	E.W. Anderson *et al.*	(BNL, CMU)
BAUD	69	PL 30B 129	R. Baud *et al.*	
BOESEBECK	68	NP B4 501	K. Boesebeck *et al.*	(AACH, BERL, CERN)
CLAYTON	67	Heidelberg Conf. 57	J.C. Clayton *et al.*	(LIVP, ATHU)
FOCACCI	66	PRL 17 890	M.N. Focacci *et al.*	(CERN)

OTHER RELATED PAPERS

BOLONKIN	00	JETPL 72 166 Translated from ZETFP 72 240.	B.V. Bolonkin *et al.*	
ANTIPOV	72	PL 40 147	Y.M. Antipov *et al.*	(SERP)
CHIKOVANI	66	PL 22 233	G.E. Chikovani *et al.*	(SERP)