

$a_0(1450)$

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

 See minireview on scalar mesons under $f_0(1370)$.

$a_0(1450)$ MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
1474 ± 19 OUR AVERAGE			
1480 ± 30	ABELE	98 CBAR	0.0 $\bar{p}p \rightarrow K_L^0 K^\pm \pi^\mp$
1470 ± 25	¹ AMSLER	95D CBAR	0.0 $\bar{p}p \rightarrow \pi^0 \pi^0 \pi^0, \pi^0 \eta \eta, \pi^0 \pi^0 \eta$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1450 ± 40	AMSLER	94D CBAR	0.0 $\bar{p}p \rightarrow \pi^0 \pi^0 \eta$
1435 ± 40	BUGG	94 RVUE	$\bar{p}p \rightarrow \eta 2\pi^0$
¹ Coupled-channel analysis of AMSLER 95B, AMSLER 95C, and AMSLER 94D.			

$a_0(1450)$ WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
265 ± 13 OUR AVERAGE			
265 ± 15	ABELE	98 CBAR	0.0 $\bar{p}p \rightarrow K_L^0 K^\pm \pi^\mp$
265 ± 30	² AMSLER	95D CBAR	0.0 $\bar{p}p \rightarrow \pi^0 \pi^0 \pi^0, \pi^0 \eta \eta, \pi^0 \pi^0 \eta$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
270 ± 40	AMSLER	94D CBAR	0.0 $\bar{p}p \rightarrow \pi^0 \pi^0 \eta$
270 ± 40	BUGG	94 RVUE	$\bar{p}p \rightarrow \eta 2\pi^0$
² Coupled-channel analysis of AMSLER 95B, AMSLER 95C, and AMSLER 94D.			

$a_0(1450)$ DECAY MODES

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad \pi \eta$	seen
$\Gamma_2 \quad \pi \eta'(958)$	seen
$\Gamma_3 \quad K \bar{K}$	seen

$\Gamma(\pi \eta'(958))/\Gamma(\pi \eta)$

 Γ_2/Γ_1

VALUE	DOCUMENT ID	TECN	COMMENT
0.35 ± 0.16	³ ABELE	98 CBAR	0.0 $\bar{p}p \rightarrow K_L^0 K^\pm \pi^\mp$
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.43 ± 0.19	ABELE	97C CBAR	0.0 $\bar{p}p \rightarrow \pi^0 \pi^0 \eta'$
³ Using $\pi^0 \eta$ from AMSLER 94D.			

$\Gamma(K\bar{K})/\Gamma(\pi\eta)$

Γ_3/Γ_1

<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.88±0.23	³ ABELE	98 CBAR	0.0 $\bar{p}p \rightarrow K_L^0 K^\pm \pi^\mp$

$a_0(1450)$ REFERENCES

ABELE	98	PR D57 3860	A. Abele, Adomeit, Amsler+	(Crystal Barrel Collab.)
ABELE	97C	PL B404 179	A. Abele, Adomeit, Amsler+	(Crystal Barrel Collab.)
AMSLER	95B	PL B342 433	+Armstrong, Brose+	(Crystal Barrel Collab.)
AMSLER	95C	PL B353 571	+Armstrong, Hackman+	(Crystal Barrel Collab.)
AMSLER	95D	PL B355 425	+Armstrong, Spanier+	(Crystal Barrel Collab.)
AMSLER	94D	PL B333 277	+Anisovich, Spanier+	(Crystal Barrel Collab.) IGJPC
BUGG	94	PR D50 4412	+Anisovich+	(LOQM)