

**$\eta(1295)$** 

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

See also the mini-review under non- $q\bar{q}$  candidates. (See the index for the page number.) **$\eta(1295)$  MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>1297.0 ± 2.8 OUR AVERAGE</b>				
1299 ± 4	2100	ALDE	97B GAM4	100 $\pi^- p \rightarrow \eta \pi^0 \pi^0 n$
1295 ± 4		FUKUI	91C SPEC	8.95 $\pi^- p \rightarrow \eta \pi^+ \pi^- n$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
~ 1275		STANTON	79 CNTR	8.4 $\pi^- p \rightarrow n \eta 2\pi$

 **$\eta(1295)$  WIDTH**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>53 ± 6</b>				
		FUKUI	91C SPEC	8.95 $\pi^- p \rightarrow \eta \pi^+ \pi^- n$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
< 40	2100	ALDE	97B GAM4	100 $\pi^- p \rightarrow \eta \pi^0 \pi^0 n$
~ 70		STANTON	79 CNTR	8.4 $\pi^- p \rightarrow n \eta 2\pi$

 **$\eta(1295)$  DECAY MODES**

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $\eta \pi^+ \pi^-$	seen
$\Gamma_2$ $a_0(980) \pi$	seen
$\Gamma_3$ $\gamma \gamma$	
$\Gamma_4$ $\eta \pi^0 \pi^0$	seen
$\Gamma_5$ $\eta(\pi\pi)S$ -wave	seen

 **$\eta(1295)$   $\Gamma(i)\Gamma(\gamma\gamma)/\Gamma(\text{total})$** 

VALUE (keV)	CL%	DOCUMENT ID	TECN	COMMENT	$\Gamma_1\Gamma_3/\Gamma$
<b>&lt; 0.3</b>					
		ANTREASYAN 87	CBAL	$e^+ e^- \rightarrow e^+ e^- \eta \pi \pi$	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
< 0.6	90	AIHARA	88C TPC	$e^+ e^- \rightarrow e^+ e^- \eta \pi^+ \pi^-$	

## $\eta(1295)$ BRANCHING RATIOS

$\Gamma(a_0(980)\pi)/\Gamma_{\text{total}}$				$\Gamma_2/\Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	

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

not seen	BERTIN	97	OBLX	0.0 $\bar{p}p \rightarrow K^\pm(K^0)\pi^\mp\pi^+\pi^-$
seen	BIRMAN	88	MPS	$8 \pi^- p \rightarrow K^+ \bar{K}^0 \pi^- n$
large	ANDO	86	SPEC	$8 \pi^- p \rightarrow \eta \pi^+ \pi^- n$
large	STANTON	79	CNTR	$8.4 \pi^- p \rightarrow n\eta 2\pi$

$\Gamma(a_0(980)\pi)/\Gamma(\eta\pi^0\pi^0)$				$\Gamma_2/\Gamma_4$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	

<b>0.65 ± 0.10</b>	<sup>1</sup> ALDE	97B	GAM4	100 $\pi^- p \rightarrow \eta\pi^0\pi^0 n$
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<sup>1</sup> Assuming that  $a_0(980)$  decays only to  $\eta\pi$ .

$\Gamma(\eta(\pi\pi)S\text{-wave})/\Gamma(\eta\pi^0\pi^0)$				$\Gamma_5/\Gamma_4$
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	

<b>0.35 ± 0.10</b>	ALDE	97B	GAM4	100 $\pi^- p \rightarrow \eta\pi^0\pi^0 n$
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## $\eta(1295)$ REFERENCES

ALDE	97B	PAN 60 386	D. Alde, Binon, Bricman+	(GAMS Collab.)
		Translated from YAF 60 458.		
BERTIN	97	PL B400 226	+Bruschi, Capponi+	(OBELIX Collab.)
FUKUI	91C	PL B267 293	+ (SUGI, NAGO, KEK, KYOT, MIYA, AKIT)	
AIHARA	88C	PR D38 1	+Alston-Garnjost+	(TPC-2 $\gamma$ Collab.)
BIRMAN	88	PRL 61 1557	+Chung, Peaslee+	(BNL, FSU, IND, MASD) JP
ANTREASYAN	87	PR D36 2633	+Bartels, Besset+	(Crystal Ball Collab.)
ANDO	86	PRL 57 1296	+Imai+ (KEK, KYOT, NIRS, SAGA, INUS, TSUK+)	IJP
STANTON	79	PRL 42 346	+Brockman+	(OSU, CARL, MCGI, TNT0) JP