$\hat{\rho}(1405)$

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

OMITTED FROM SUMMARY TABLE

Seen by ALDE 88B in $\pi^- p \to \eta\pi^0 n$ amplitude analysis. Not confirmed by reanalysis of PROKOSHKIN 95B.

See also the mini-review under non-$q\overline{q}$ candidates. (See the index for the page number.)

$\hat{\rho}(1405)$ MASS

VALUE (MeV)	DOCUMENT ID		TECN	CHG	COMMENT
1406 ±20	[1] ALDE	88B	GAM4	0	100 $\pi^- p \to \eta\pi^0 n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1323.1± 4.6	AOYAGI	93	BKEI		$\pi^- p \to \eta\pi^- p$

[1] Seen in the P_0-wave intensity of the $\eta\pi^0$ system.

$\hat{\rho}(1405)$ WIDTH

VALUE (MeV)	DOCUMENT ID		TECN	CHG	COMMENT
180 ±20	[2] ALDE	88B	GAM4	0	100 $\pi^- p \to \eta\pi^0 n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
143.2±12.5	AOYAGI	93	BKEI		$\pi^- p \to \eta\pi^- p$

[2] Seen in the P_0-wave intensity of the $\eta\pi^0$ system.

$\hat{\rho}(1405)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\eta\pi^0$	possibly seen
Γ_2	$\eta\pi^-$	
Γ_3	$\rho\pi$	not seen
Γ_4	$\eta'\pi$	

$\hat{\rho}(1405)$ BRANCHING RATIOS

$\Gamma(\eta\pi^0)/\Gamma_{total}$ Γ_1/Γ

VALUE	DOCUMENT ID		TECN	CHG	COMMENT
possibly seen	[3] ALDE	88B	GAM4	0	100 $\pi^- p \to \eta\pi^0 n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
not seen	PROKOSHKIN	95B	GAM4		100 $\pi^- p \to \eta\pi^0 n$
not seen	[4] BUGG	94	RVUE		$\overline{p}p \to \eta 2\pi^0$
not seen	[5] APEL	81	NICE	0	40 $\pi^- p \to \eta\pi^0 n$

[3] Seen in the P_0-wave intensity of the $\eta\pi^0$ system.

[4] Using Crystal Barrel data.

[5] A general fit allowing S, D, and P waves (including m=0) is not done because of limited statistics.

$\Gamma(\eta\pi^-)/\Gamma_{total}$ Γ_2/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
possibly seen	AOYAGI	93	BKEI	$\pi^- p \to \eta\pi^- p$

$\Gamma(\rho\pi)/\Gamma_{total}$ Γ_3/Γ

VALUE	DOCUMENT ID		COMMENT
not seen	[6] ZIELINSKI	86	200 π^+ Cu,Pb $\to \pi^+\pi^+\pi^-$ X

[6] A general fit allowing S, D, and P waves (including m=0) is not done because of limited statistics.

$\Gamma(\eta'\pi)/\Gamma(\eta\pi^0)$ **Γ_4/Γ_1**

VALUE	CL%	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<0.80	95	BOUTEMEUR 90	GAM4	100 π^- $p \rightarrow 4\gamma n$

$\hat{p}(1405)$ REFERENCES

PROKOSHKIN	95B	PAN 58 606	+Sadovski	(SERP)
		Translated from YAF 58 662.		
BUGG	94	PR D50 4412	+Anisovich+	(LOQM)
AOYAGI	93	PL B314 246	+Fukui, Hasegawa+	(BKEI Collab.)
BOUTEMEUR	90	Hadron 89 Conf. p 119	+Poulet (SERP, BELG, LANL, LAPP, PISA, KEK)	
ALDE	88B	PL B205 397	+Binon, Boutemeur+ (SERP, BELG, LANL, LAPP)	IGJPC
ZIELINSKI	86	Berkeley HEP 1 736	+Berg+ (ROCH, MINN, FNAL)	
APEL	81	NP B193 269	+Augenstein, Bertolucci, Donskov+ (SERP, CERN)	

OTHER RELATED PAPERS

PROKOSHKIN	95C	PAN 58 853	+Sadovski	(SERP)
		Translated from YAF 58 921.		
KALASHNIK...	94	ZPHY C62 323	Kalashnikova	(ITEP)
IDDIR	88	PL B205 564	+Le Yaouanc, Ono+	(ORSAY, TOKY)
TUAN	88	PL B213 537	+Ferbel, Dalitz	(HAWA, ROCH, OXFTP)
ZIELINSKI	87	ZPHY C34 255		(ROCH)