

Reference = ACHASOV 15; PR D91 092010
Verifier code = DRUZHININ

PLEASE READ NOW

*PLEASE
REPLY
WITHIN
ONE WEEK*

Normally we send all verifications for one experiment to one person, usually the spokesperson or data-analysis coordinator, who then distributes them to the appropriate people. Please tell us if we should send the verifications for your experiment to someone else.

Vladimir P. Druzhinin

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July 21, 2016

Dear Colleague,

- (1) Please check the results of your experiment carefully. They are marked.
- (2) Please reply within one week.
- (3) Please reply even if everything is correct.
- (4) IMPORTANT!! Please tell WHICH papers you are verifying. We have lots of requests out.
- (5) Feel free to make comments on our treatment of any of the results (not just yours) you see.

Thank you for helping us make the Review accurate and useful.

Sincerely,

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LIGHT UNFLAVORED MESONS
(S = C = B = 0)

For $I = 1$ (π, b, ρ, a): $u\bar{d}, (u\bar{u}-d\bar{d})/\sqrt{2}, d\bar{u}$;
for $I = 0$ ($\eta, \eta', h, h', \omega, \phi, f, f'$): $c_1(u\bar{u} + d\bar{d}) + c_2(s\bar{s})$

$\eta'(958)$

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

NODE=MXXX005

NODE=MXXX005

NODE=M002

$\eta'(958)$ PARTIAL WIDTHS

NODE=M002220

$\Gamma(e^+e^-)$						Γ_{23}
VALUE (eV)	CL%	DOCUMENT ID		TECN	COMMENT	
$<1.1 \times 10^{-3}$	90	1,2	ACHASOV	15	SND	$0.958\ e^+e^- \rightarrow \pi\pi\eta$
• • • We do not use the following data for averages, fits, limits, etc. • • •						
$<2.0 \times 10^{-3}$	90	2	ACHASOV	15	SND	$0.958\ e^+e^- \rightarrow \pi\pi\eta$
$<2.4 \times 10^{-3}$	90	2	AKHMETSHIN	15	CMD3	$0.958\ e^+e^- \rightarrow \pi^+\pi^-\eta$
1 Combining data of ACHASOV 15 and AKHMETSHIN 15.						
2 Using η and η' branching fractions from PDG 14.						

NODE=M002W1
NODE=M002W1

OCCUR=2

NODE=M002W1;LINKAGE=A
NODE=M002W1;LINKAGE=B

$\eta'(958)$ BRANCHING RATIOS

NODE=M002230

$\Gamma(e^+e^-)/\Gamma_{\text{total}}$						Γ_{23}/Γ
VALUE	CL%	DOCUMENT ID	TECN	COMMENT		
$< 5.6 \times 10^{-9}$	90	1 ACHASOV	15	SND	$0.958 e^+e^- \rightarrow \pi\pi\eta$	
• • • We do not use the following data for averages, fits, limits, etc. • • •						
$<12 \times 10^{-9}$	90	2 AKHMETSHIN	15	CMD3	$0.958 e^+e^- \rightarrow \pi^+\pi^-\eta$	
$< 2.1 \times 10^{-7}$	90	VOROBYEV	88	ND	$e^+e^- \rightarrow \pi^+\pi^-\eta$	
1 Combining data of ACHASOV 15 and AKHMETSHIN 15 and using $\Gamma(\eta') = 0.198 \pm 0.009$ MeV.						
2 Using $\Gamma_{\eta'(958)} = 198 \pm 9$ keV, $B(\eta'(958) \rightarrow \pi^+\pi^-\eta) = (42.9 \pm 0.7)\%$, and $B(\eta \rightarrow \gamma\gamma) = (39.41 \pm 0.20)\%$.						

NODE=M002R39
NODE=M002R39

NODE=M002R39;LINKAGE=B

NODE=M002R39;LINKAGE=A

$\eta'(958)$ REFERENCES

NODE=M002

YOUR PAPER	ACHASOV	15	PR D91 092010	M.N. Achasov <i>et al.</i>	(SND Collab.)
	AKHMETSHIN	15	PL B740 273	R.R. Akhmetshin <i>et al.</i>	(CMD-3 Collab.)
	PDG	14	CPC 38 070001	K. Olive <i>et al.</i>	(PDG Collab.)
	VOROBYEV	88	SJNP 48 273	P.V. Vorobiev <i>et al.</i>	(NOVO)
Translated from YAF 48 436.					

REFID=56788
REFID=56386
REFID=55687
REFID=41023