

ρ(1570)

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

OMITTED FROM SUMMARY TABLE

May be an OZI-violating decay mode of ρ(1700). See our mini-review under the ρ(1700).

ρ(1570) MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
1570±36±62	54	¹ AUBERT	08S BABR	10.6 e ⁺ e ⁻ → φπ ⁰ γ
1480±40		² BITYUKOV	87 SPEC	32.5 π ⁻ p → φπ ⁰ n

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

¹ From the fit with two resonances.
² Systematic errors not estimated.

ρ(1570) WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
144±75±43	54	³ AUBERT	08S BABR	10.6 e ⁺ e ⁻ → φπ ⁰ γ
130±60		⁴ BITYUKOV	87 SPEC	32.5 π ⁻ p → φπ ⁰ n

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

³ From the fit with two resonances.
⁴ Systematic errors not estimated.

ρ(1570) DECAY MODES

Mode	Fraction (Γ _i /Γ)
Γ ₁ e ⁺ e ⁻	
Γ ₂ φπ	not seen
Γ ₃ ωπ	

ρ(1570) Γ(i)Γ(e⁺e⁻)/Γ(total)

VALUE (eV)	CL%	EVTS	DOCUMENT ID	TECN	COMMENT	Γ ₂ Γ ₁ /Γ
3.5±0.9±0.3		54	⁵ AUBERT	08S BABR	10.6 e ⁺ e ⁻ → φπ ⁰ γ	
<70	90		⁶ AULCHENKO	87B ND	e ⁺ e ⁻ → K _S ⁰ K _L ⁰ π ⁰	

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

⁵ From the fit with two resonances.
⁶ Using mass and width of BITYUKOV 87.

$\rho(1570)$ BRANCHING RATIOS

$\Gamma(\phi\pi)/\Gamma_{\text{total}}$				Γ_2/Γ
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	

not seen	ABELE	97H	CBAR	$\bar{p}p \rightarrow K_L^0 K_S^0 \pi^0 \pi^0$
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• • • We do not use the following data for averages, fits, limits, etc. • • •

<0.01	⁷ DONNACHIE	91	RVUE	
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⁷ Using data from BISELLO 91B, DOLINSKY 86, and ALBRECHT 87L.

$\Gamma(\phi\pi)/\Gamma(\omega\pi)$				Γ_2/Γ_3
<u>VALUE</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>

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

>0.5	95	BITYUKOV	87	SPEC $32.5 \pi^- p \rightarrow \phi \pi^0 n$
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 $\rho(1570)$ REFERENCES

AUBERT	08S	PR D77 092002	B. Aubert <i>et al.</i>	(BABAR Collab.)
ABELE	97H	PL B415 280	A. Abele <i>et al.</i>	(Crystal Barrel Collab.)
BISELLO	91B	NPBPS B21 111	D. Bisello	(DM2 Collab.)
DONNACHIE	91	ZPHY C51 689	A. Donnachie, A.B. Clegg	(MCHS, LANC)
ALBRECHT	87L	PL B185 223	H. Albrecht <i>et al.</i>	(ARGUS Collab.)
AULCHENKO	87B	JETPL 45 145	V.M. Aulchenko <i>et al.</i>	(NOVO)
		Translated from ZETFP 45 118.		
BITYUKOV	87	PL B188 383	S.I. Bityukov <i>et al.</i>	(SERP)
DOLINSKY	86	PL B174 453	S.I. Dolinsky <i>et al.</i>	(NOVO)