$\omega(1420)$

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

$\omega(1420)$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
1419± 31	315	[1] ANTONELLI	92	DM2	1.34–2.4 $e^+e^- \to \rho\pi$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1370± 25	5095	ANISOVICH	00H	SPEC	0.0 $p\overline{p} \to \omega\pi^0\pi^0\pi^0$
1170± 10		[2] ACHASOV	99E	RVUE	0.75–1.80 $e^+e^- \to \pi^+\pi^-\pi^0$
1400^{+100}_{-200}		[3] ACHASOV	98H	RVUE	$e^+e^- \to \pi^+\pi^-\pi^0$
~ 1400		[4] ACHASOV	98H	RVUE	$e^+e^- \to \omega\pi^+\pi^-$
~ 1460		[5] ACHASOV	98H	RVUE	$e^+e^- \to K^+K^-$
1440± 70		[6] CLEGG	94	RVUE	

[1] From a fit to two Breit-Wigner functions interfering between them and with the ω,ϕ tails with fixed (+,−,+) phases.
[2] Using the data of DOLINSKY 91, ANTONELLI 92, AKHMETSHIN 98, and ACHASOV 99E. From a fit to two Breit-Wigner functions interfering between them and with the ω,ϕ tails with fixed (+,−,+) phases.
[3] Using data from BARKOV 87, DOLINSKY 91, and ANTONELLI 92.
[4] Using the data from ANTONELLI 92.
[5] Using the data from IVANOV 81 and BISELLO 88B.
[6] Using data published by ANTONELLI 92.

$\omega(1420)$ WIDTH

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
174± 59	315	[7] ANTONELLI	92	DM2	1.34–2.4 $e^+e^- \to \rho\pi$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
360^{+100}_{-60}	5095	ANISOVICH	00H	SPEC	0.0 $p\overline{p} \to \omega\pi^0\pi^0\pi^0$
187± 15		[8] ACHASOV	99E	RVUE	0.75–1.80 $e^+e^- \to \pi^+\pi^-\pi^0$
240± 70		[9] CLEGG	94	RVUE	

[7] From a fit to two Breit-Wigner functions interfering between them and with the ω,ϕ tails with fixed (+,−,+) phases.
[8] Using the data of DOLINSKY 91, ANTONELLI 92, AKHMETSHIN 98, and ACHASOV 99E. From a fit to two Breit-Wigner functions interfering between them and with the ω,ϕ tails with fixed (+,−,+) phases.
[9] Using data published by ANTONELLI 92.

$\omega(1420)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\rho\pi$	dominant
Γ_2	$\omega\pi\pi$	possibly seen
Γ_3	$b_1(1235)\pi$	seen
Γ_4	e^+e^-	

$\omega(1420)$ $\Gamma(i)\Gamma(e^+e^-)/\Gamma(total)$

$\Gamma(\rho\pi) \times \Gamma(e^+e^-)/\Gamma_{total}$ $\Gamma_1\Gamma_4/\Gamma$

VALUE (eV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
81±31	315	[10] ANTONELLI	92	DM2	1.34–2.4 $e^+e^- \to \rho\pi$

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

137± 3±15	[11] ACHASOV	99E	RVUE	0.75–1.80 $e^+e^- \to \pi^+\pi^-\pi^0$

[10] From a fit to two Breit-Wigner functions interfering between them and with the ω,ϕ tails with fixed (+,−,+) phases.

[11] Using the data of DOLINSKY 91, ANTONELLI 92, AKHMETSHIN 98, and ACHASOV 99E. From a fit to two Breit-Wigner functions interfering between them and with the ω,ϕ tails with fixed (+,−,+) phases.

$\omega(1420)$ BRANCHING RATIOS

$\Gamma(\omega\pi\pi)/\Gamma_{total}$ Γ_2/Γ

VALUE	*DOCUMENT ID*	*TECN*	*COMMENT*

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

possibly seen	AKHMETSHIN 00D	CMD2	$e^+e^- \to \omega\pi^+\pi^-$	

$\Gamma(\omega\pi\pi)/\Gamma(b_1(1235)\pi)$ Γ_2/Γ_3

VALUE	*EVTS*	*DOCUMENT ID*	*TECN*	*COMMENT*

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

0.60±0.16	5095	ANISOVICH 00H	SPEC	0.0 $p\overline{p} \to \omega\pi^0\pi^0\pi^0$

$\omega(1420)$ REFERENCES

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