NODE=M270

$\omega(2220)$

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

OMITTED FROM SUMMARY TABLE

$\omega(2220)$ MASS

NODE=M270M

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT	
2232±19±27	[1] ABLIKIM	23G	BES3	2.0–3.1 $e^+e^- \to \omega\pi\pi$	NODE=M270M
• • • We do not use the following data for averages, fits, limits, etc. • • •					
2250±25±27	[2] ABLIKIM	23G	BES3	2.0–3.1 $e^+e^- \to \omega\pi^+\pi^-$	OCCUR=2
2222± 7± 2	[3] ABLIKIM	22I	BES3	2.0–3.8 $e^+e^- \to \omega\pi^0\pi^0$	
2205±30	[4] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \to \omega\eta, \omega\pi^0\pi^0$	

[1] From a fit to $\omega\pi^+\pi^-$ and $\omega\pi^0\pi^0$ with a Breit-Wigner resonance interfering with the continuum. Supersedes ABLIKIM 22I. NODE=M270M;LINKAGE=A

[2] From a fit to $\omega\pi^+\pi^-$ with a Breit-Wigner resonance interfering with the continuum. NODE=M270M;LINKAGE=B

[3] From the fit to the cross section by the coherent sum of resonant component parametrized by a modified Breit-Wigner amplitude and a phase-space contribution for the continuum. NODE=M270M;LINKAGE=C

[4] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B. NODE=M270M;LINKAGE=D

$\omega(2220)$ WIDTH

NODE=M270W

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT	
93±53±20	[5] ABLIKIM	23G	BES3	2.0–3.1 $e^+e^- \to \omega\pi\pi$	NODE=M270W
• • • We do not use the following data for averages, fits, limits, etc. • • •					
125±43±15	[6] ABLIKIM	23G	BES3	2.0–3.1 $e^+e^- \to \omega\pi^+\pi^-$	OCCUR=2
59±30± 6	[7] ABLIKIM	22I	BES3	2.0–3.8 $e^+e^- \to \omega\pi^0\pi^0$	
350±90	[8] ANISOVICH	02B	SPEC	0.6–1.9 $p\overline{p} \to \omega\eta, \omega\pi^0\pi^0$	

[5] From a fit to $\omega\pi^+\pi^-$ and $\omega\pi^0\pi^0$ with a Breit-Wigner resonance interfering with the continuum. Supersedes ABLIKIM 22I. NODE=M270W;LINKAGE=A

[6] From a fit to $\omega\pi^+\pi^-$ with a Breit-Wigner resonance interfering with the continuum. NODE=M270W;LINKAGE=B

[7] From the fit to the cross section by the coherent sum of resonant component parametrized by a modified Breit-Wigner amplitude and a phase-space contribution for the continuum. NODE=M270W;LINKAGE=C

[8] From the combined analysis of ANISOVICH 00D, ANISOVICH 01C, and ANISOVICH 02B. NODE=M270W;LINKAGE=D

$\omega(2220)$ DECAY MODES

NODE=M270215;NODE=M270

	Mode	Fraction (Γ_i/Γ)	
Γ_1	$\omega\pi\pi$	seen	DESIG=3;OUR EVAL;→ UNCHECKED ←
Γ_2	$\omega\pi^+\pi^-$	seen	DESIG=4;OUR EVAL;→ UNCHECKED ←
Γ_3	$\omega\pi^0\pi^0$	seen	DESIG=1;OUR EVAL;→ UNCHECKED ←
Γ_4	e^+e^-	seen	DESIG=2;OUR EVAL;→ UNCHECKED ←

$\omega(2220)$ $\Gamma(i)\Gamma(e^+e^-)/\Gamma(\text{total})$

NODE=M270235

$\Gamma(\omega\pi^0\pi^0) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\quad \Gamma_3\Gamma_4/\Gamma$

NODE=M270G00

VALUE (eV)	DOCUMENT ID		TECN	COMMENT	
• • • We do not use the following data for averages, fits, limits, etc. • • •					NODE=M270G00
0.3±0.1±0.1	[9] ABLIKIM	22I	BES3	2.0–3.8 $e^+e^- \to \omega\pi^0\pi^0$	

[9] Superseded by ABLIKIM 23G. NODE=M270G00;LINKAGE=A

$\Gamma(\omega\pi^+\pi^-) \times \Gamma(e^+e^-)/\Gamma_{\text{total}}$ $\quad \Gamma_2\Gamma_4/\Gamma$

NODE=M270R01

VALUE (eV)	DOCUMENT ID		TECN	COMMENT	
• • • We do not use the following data for averages, fits, limits, etc. • • •					NODE=M270R01
0.9±0.4±0.4	[10] ABLIKIM	23G	BES3	2.0–3.1 $e^+e^- \to \omega\pi^+\pi^-$	

[10] From a fit to $\omega\pi^+\pi^-$ with a Breit-Wigner resonance interfering with the continuum. Solution with constructive interference: 52.9 ± 17.0 ± 13.1 eV. NODE=M270R01;LINKAGE=A

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

NODE=M270R00

VALUE (eV)	DOCUMENT ID		TECN	COMMENT	
0.9±0.5±0.2	[11] ABLIKIM	23G	BES3	2.0–3.1 $e^+e^- \to \omega\pi\pi$	NODE=M270R00

[11] From a fit to $\omega\pi^+\pi^-$ and $\omega\pi^0\pi^0$ with a Breit-Wigner resonance interfering with the continuum. Solution with constructive interference: 61.1 ± 32.1 ± 15.4 eV. Supersedes ABLIKIM 22I. NODE=M270R00;LINKAGE=A

$\omega(2220)$ REFERENCES

NODE=M270

ABLIKIM	23G	JHEP 2301 111	M. Ablikim *et al.*	(BESIII Collab.)	REFID=62049
Also		JHEP 2303 093 (errat.)	M. Ablikim, et. al.	(BESIII Collab.)	REFID=62054
ABLIKIM	22I	PR D105 032005	M. Ablikim *et al.*	(BESIII Collab.)	REFID=61644
ANISOVICH	02B	PL B542 19	A.V. Anisovich *et al.*		REFID=48829
ANISOVICH	01C	PL B507 23	A.V. Anisovich *et al.*		REFID=48325
ANISOVICH	00D	PL B476 15	A.V. Anisovich *et al.*		REFID=47944