

X(2370)

$$I^G(J^{PC}) = ??(???)$$

OMITTED FROM SUMMARY TABLE

X(2370) MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2357 ±17 OUR AVERAGE		Error includes scale factor of 2.7.		
2341.6 ± 6.5 ± 5.7		¹ ABLIKIM	20Q BES3	$J/\psi \rightarrow \gamma K \bar{K} \eta'$
2376.3 ± 8.7 ^{+3.2} _{-4.3}	565	ABLIKIM	11C BES3	$J/\psi \rightarrow \gamma \pi^+ \pi^- \eta'$

¹ The state observed by ABLIKIM 11C at 2120 MeV is not observed with 90% CL upper limit of 1.49×10^{-5} for $J/\psi \rightarrow \gamma X(2120) \rightarrow \gamma K^+ K^- \eta'$ and 6.38×10^{-6} for $K_S^0 K_S^0 \eta'$.

X(2370) WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
114⁺¹²₋₁₀ OUR AVERAGE			
117 ± 10 ± 8	¹ ABLIKIM	20Q BES3	$J/\psi \rightarrow \gamma K \bar{K} \eta'$
83 ± 17 ⁺⁴⁴ ₋₆	ABLIKIM	11C BES3	$J/\psi \rightarrow \gamma \pi^+ \pi^- \eta'$

¹ The state observed by ABLIKIM 11C at 2120 MeV is not observed with 90% CL upper limit of 1.49×10^{-5} for $J/\psi \rightarrow \gamma X(2120) \rightarrow \gamma K^+ K^- \eta'$ and 6.38×10^{-6} for $K_S^0 K_S^0 \eta'$.

X(2370) DECAY MODES

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad K^+ K^- \eta'$	seen
$\Gamma_2 \quad K_S^0 K_S^0 \eta'$	seen
$\Gamma_3 \quad \pi^+ \pi^- \eta'$	seen
$\Gamma_4 \quad \eta \eta \eta'$	not seen

X(2370) BRANCHING RATIOS

$\Gamma(K^+ K^- \eta')/\Gamma_{\text{total}}$	Γ_1/Γ		
VALUE	DOCUMENT ID	TECN	COMMENT
seen	ABLIKIM	20Q BES3	$J/\psi \rightarrow \gamma K^+ K^- \eta'$

$\Gamma(K_S^0 K_S^0 \eta')/\Gamma_{\text{total}}$	Γ_2/Γ		
VALUE	DOCUMENT ID	TECN	COMMENT
seen	ABLIKIM	20Q BES3	$J/\psi \rightarrow \gamma K_S^0 K_S^0 \eta'$

$\Gamma(\pi^+\pi^-\eta')/\Gamma_{\text{total}}$				Γ_3/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
seen	ABLIKIM 11C	BES3	$J/\psi \rightarrow \gamma\pi^+\pi^-\eta'$	

$\Gamma(\eta\eta\eta')/\Gamma_{\text{total}}$				Γ_4/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
not seen	¹ ABLIKIM 21C	BES3	$J/\psi(1S) \rightarrow \gamma\eta\eta\eta'$	
¹ ABLIKIM 21C measured $B(J/\psi(1S) \rightarrow \gamma X(2370) \rightarrow \gamma\eta\eta\eta') < 9.2 \times 10^{-6}$.				

X(2370) REFERENCES

ABLIKIM 21C	PR D103 012009	M. Ablikim <i>et al.</i>	(BESIII Collab.)
ABLIKIM 20Q	EPJ C80 746	M. Ablikim <i>et al.</i>	(BESIII Collab.)
ABLIKIM 11C	PRL 106 072002	M. Ablikim <i>et al.</i>	(BESIII Collab.)