

X(4240)[±]

$$I^G(J^P) = ?^?(0^-)$$

OMITTED FROM SUMMARY TABLE

Spin and parity assignment $J^P = 0^-$ is favored over 1^- , 2^- , and 2^+ by 8σ and over 1^+ by 1σ , according to the four-dimensional amplitude analysis of AAIJ 14AG.

X(4240)[±] MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
4239 ± 18⁺⁴⁵₋₁₀	¹ AAIJ	14AG LHCb	$B^0 \rightarrow K^+ \pi^- \psi(2S)$

¹ From a 4-dimensional analysis when a second, lower mass resonance is allowed in the $X(4430)^\pm$ fit, with significance 6σ including systematic variations.

X(4240)[±] WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
220 ± 47⁺¹⁰⁸₋₇₄	² AAIJ	14AG LHCb	$B^0 \rightarrow K^+ \pi^- \psi(2S)$

² From a 4-dimensional analysis when a second, lower mass resonance is allowed in the $X(4430)^\pm$ fit, with significance 6σ including systematic variations.

X(4240)[±] DECAY MODES

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad \pi^- \psi(2S)$	seen

X(4240)[±] BRANCHING RATIOS

$\Gamma(\pi^- \psi(2S))/\Gamma_{\text{total}}$	Γ_1/Γ		
VALUE	DOCUMENT ID	TECN	COMMENT
seen	³ AAIJ	14AG LHCb	$B^0 \rightarrow K^+ \pi^- \psi(2S)$

³ From a 4-dimensional analysis when a second, lower mass resonance is allowed in the $X(4430)^\pm$ fit. No partial branching fraction quoted.

X(4240)[±] REFERENCES

AAIJ	14AG PRL 112 222002	R. Aaij <i>et al.</i>	(LHCb Collab.)
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