

X(4430)[±]

$$I(J^P) = ?(??)$$

OMITTED FROM SUMMARY TABLE

Seen by CHOI 08 in $B \rightarrow K\pi^+\psi(2S)$ decays and confirmed by reanalysis of the same data sample in MIZUK 09. Not seen by AUBERT 09AA.

X(4430)[±] MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
4443⁺¹⁵⁺¹⁹₋₁₂₋₁₃	¹ MIZUK	09	BELL $B \rightarrow K\pi^+\psi(2S)$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
4433 ± 4 ± 2	² CHOI	08	BELL $B \rightarrow K\pi^+\psi(2S)$
¹ From a Dalitz plot analysis.			
² Superseded by MIZUK 09.			

X(4430)[±] WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
107⁺⁸⁶⁺⁷⁴₋₄₃₋₅₆	³ MIZUK	09	BELL $B \rightarrow K\pi^+\psi(2S)$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●			
45 ⁺¹⁸⁺³⁰ ₋₁₃₋₁₃	⁴ CHOI	08	BELL $B \rightarrow K\pi^+\psi(2S)$
³ From a Dalitz plot analysis.			
⁴ Superseded by MIZUK 09.			

X(4430)[±] DECAY MODES

Mode	Fraction (Γ_i/Γ)
Γ_1 $\pi^+\psi(2S)$	seen
Γ_2 π^+J/ψ	not seen

X(4430)[±] BRANCHING RATIOS

$\Gamma(\pi^+\psi(2S))/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	COMMENT	Γ_1/Γ
seen	⁵ MIZUK	09	BELL $B \rightarrow K\pi^+\psi(2S)$	
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
not seen	⁶ AUBERT	09AA	BABR $B \rightarrow K\pi^+\psi(2S)$	
⁵ Measured a product of branching fractions $B(\bar{B}^0 \rightarrow K^- X(4430)^+) \times B(X(4430)^+ \rightarrow \pi^+\psi(2S)) = (3.2^{+1.8+5.3}_{-0.9-1.6}) \times 10^{-5}$.				
⁶ AUBERT 09AA quotes $B(B^+ \rightarrow \bar{K}^0 X(4430)^+) \times B(X(4430)^+ \rightarrow \pi^+\psi(2S)) < 4.7 \times 10^{-5}$ and $B(\bar{B}^0 \rightarrow K^- X(4430)^+) \times B(X(4430)^+ \rightarrow \pi^+\psi(2S)) < 3.1 \times 10^{-5}$ at 95% CL.				

$\Gamma(\pi^+ J/\psi)/\Gamma_{\text{total}}$				Γ_2/Γ
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
not seen	⁷ AUBERT	09AA BABR	$B \rightarrow K \pi^+ J/\psi$	
⁷ AUBERT 09AA quotes $B(B^+ \rightarrow \bar{K}^0 X(4430)^+) \times B(X(4430)^+ \rightarrow \pi^+ J/\psi) < 1.5 \times 10^{-5}$ and $B(\bar{B}^0 \rightarrow K^- X(4430)^+) \times B(X(4430)^+ \rightarrow \pi^+ J/\psi) < 0.4 \times 10^{-5}$ at 95% CL.				

$X(4430)^\pm$ REFERENCES

AUBERT	09AA PR D79 112001	B. Aubert <i>et al.</i>	(BABAR Collab.)
MIZUK	09 PR D80 031104	R. Mizuk <i>et al.</i>	(BELLE Collab.)
CHOI	08 PRL 100 142001	S.-K. Choi <i>et al.</i>	(BELLE Collab.)