

$Z_b(10610)^0$

$I^G(J^P) = 1^+(1^+)$

NODE=M214

was $X(10610)^0$

Observed by KROKOVNY 13 in $\Upsilon(10860) \rightarrow \Upsilon(nS)\pi^0\pi^0$ ($n=2,3$).
Isospin 1 is favored from the proximity in mass to $Z_b(10610)^\pm$ and
their similarity of observed decay modes and cross sections. J^P
 $= 1^+$ is favored from angular analysis of $Z_b(10610)^\pm$ decays by
BONDAR 12.

NODE=M214

$Z_b(10610)^0$ MASS

NODE=M214M

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
$10609 \pm 4 \pm 4$	¹ KROKOVNY 13	BELL	$e^+e^- \rightarrow \Upsilon(2S)/\Upsilon(3S)\pi^0\pi^0$
¹ From a simultaneous fit to the KROKOVNY 13 Dalitz analysis of $e^+e^- \rightarrow \Upsilon(2S)/\Upsilon(3S)\pi^0\pi^0$ decays with fixed width $\Gamma(Z_b(10610)^0) = 18.4$ MeV.			

NODE=M214M

NODE=M214M;LINKAGE=A

$Z_b(10610)^0$ DECAY MODES

NODE=M214215;NODE=M214

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad \Upsilon(1S)\pi^0$	not seen
$\Gamma_2 \quad \Upsilon(2S)\pi^0$	seen
$\Gamma_3 \quad \Upsilon(3S)\pi^0$	seen

DESIG=1

DESIG=2

DESIG=3

$Z_b(10610)^0$ BRANCHING RATIOS

NODE=M214225

$\Gamma(\Upsilon(1S)\pi^0)/\Gamma_{\text{total}}$				Γ_1/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
not seen	KROKOVNY	13	BELL	$e^+e^- \rightarrow \Upsilon(1S)\pi^0\pi^0$
$\Gamma(\Upsilon(2S)\pi^0)/\Gamma_{\text{total}}$				Γ_2/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
seen	² KROKOVNY	13	BELL	$e^+e^- \rightarrow \Upsilon(2S)\pi^0\pi^0$
² Combined significance in $e^+e^- \rightarrow \Upsilon(2S)/\Upsilon(3S)\pi^0\pi^0$, including systematics, of 6.5σ .				
$\Gamma(\Upsilon(3S)\pi^0)/\Gamma_{\text{total}}$				Γ_3/Γ
VALUE	DOCUMENT ID	TECN	COMMENT	
seen	³ KROKOVNY	13	BELL	$e^+e^- \rightarrow \Upsilon(3S)\pi^0\pi^0$
³ Combined significance in $e^+e^- \rightarrow \Upsilon(2S)/\Upsilon(3S)\pi^0\pi^0$, including systematics, of 6.5σ .				

NODE=M214R01
NODE=M214R01

NODE=M214R02
NODE=M214R02

NODE=M214R02;LINKAGE=A

NODE=M214R03
NODE=M214R03

NODE=M214R03;LINKAGE=A

$Z_b(10610)^0$ REFERENCES

NODE=M214

KROKOVNY 13	PR D88 052016	P. Krokovny <i>et al.</i>	(BELLE Collab.)
BONDAR 12	PRL 108 122001	A. Bondar <i>et al.</i>	(BELLE Collab.)

REFID=55588
REFID=53963