

$\Omega(2012)^-$ $I(J^P) = 0(?^-)$ Status: ***

Seen in $\Xi^0 K^-$ and $\Xi^- K_S^0$ decays with a combined significance of 8.3 standard deviations.

 $\Omega(2012)^-$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
$2012.4 \pm 0.7 \pm 0.6$	520	YELTON	18A BELL	In $\Upsilon(1S)$, $\Upsilon(2S)$, $\Upsilon(3S)$

 $\Omega(2012)^-$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
$6.4^{+2.5}_{-2.0} \pm 1.6$	520	YELTON	18A BELL	In $\Upsilon(1S)$, $\Upsilon(2S)$, $\Upsilon(3S)$

 $\Omega(2012)^-$ DECAY MODES

Branching fractions are given relative to the one **DEFINED AS 1**.

Mode	Fraction (Γ_i/Γ)	Confidence level
Γ_1 ΞK		
Γ_2 $(\Xi \pi) K$		
Γ_3 $\Xi^0 K^-$	DEFINED AS 1	
Γ_4 $\Xi^- \bar{K}^0$	0.83 ± 0.21	
Γ_5 $\Xi^0 \pi^0 K^-$	< 0.30	90%
Γ_6 $\Xi^0 \pi^- \bar{K}^0$	< 0.21	90%
Γ_7 $\Xi^- \pi^0 \bar{K}^0$	< 0.7	90%
Γ_8 $\Xi^- \pi^+ K^-$	< 0.08	90%

 $\Omega(2012)^-$ BRANCHING RATIOS

$\Gamma((\Xi \pi) K)/\Gamma(\Xi K)$					Γ_2/Γ_1
VALUE	CL%	DOCUMENT ID	TECN	COMMENT	
< 0.119	90	JIA	19 BELL	In $\Upsilon(1S, 2S, 3S)$	

$\Gamma(\Xi^0 K^-)/\Gamma(\Xi^- \bar{K}^0)$					Γ_3/Γ_4
VALUE	DOCUMENT ID	TECN	COMMENT		
1.2 ± 0.3	YELTON	18A BELL	In $\Upsilon(1S, 2S, 3S)$		

$\Gamma(\Xi^0 \pi^0 K^-)/\Gamma(\Xi^0 K^-)$					Γ_5/Γ_3
VALUE	CL%	DOCUMENT ID	TECN	COMMENT	
< 0.304	90	JIA	19 BELL	In $\Upsilon(1S, 2S, 3S)$	

$\Gamma(\Xi^0 \pi^- \bar{K}^0)/\Gamma(\Xi^0 K^-)$					Γ_6/Γ_3
VALUE	CL%	DOCUMENT ID	TECN	COMMENT	
< 0.213	90	JIA	19 BELL	In $\Upsilon(1S, 2S, 3S)$	

$\Gamma(\Xi^0 \pi^- \bar{K}^0)/\Gamma(\Xi^- \bar{K}^0)$			Γ_6/Γ_4		
<u>VALUE</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<0.256	90	JIA	19	BELL	In $\Upsilon(1S, 2S, 3S)$
$\Gamma(\Xi^- \pi^0 \bar{K}^0)/\Gamma(\Xi^- \bar{K}^0)$			Γ_7/Γ_4		
<u>VALUE</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<0.811	90	JIA	19	BELL	In $\Upsilon(1S, 2S, 3S)$
$\Gamma(\Xi^- \pi^+ K^-)/\Gamma(\Xi^0 K^-)$			Γ_8/Γ_3		
<u>VALUE</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<0.078	90	JIA	19	BELL	In $\Upsilon(1S, 2S, 3S)$
$\Gamma(\Xi^- \pi^+ K^-)/\Gamma(\Xi^- \bar{K}^0)$			Γ_8/Γ_4		
<u>VALUE</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	
<0.093	90	JIA	19	BELL	In $\Upsilon(1S, 2S, 3S)$

$\Omega(2121)^-$ REFERENCES

JIA	19	PR D100 032006	S. Jia <i>et al.</i>	(BELLE Collab.)
YELTON	18A	PRL 121 052003	J. Yelton <i>et al.</i>	(BELLE Collab.)