

$\Omega_c(3000)^0$ $I(J^P) = ?(?)$ Status: ***

NODE=B173

 $\Omega_c(3000)^0$ MASS

NODE=B173M

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
3000.46±0.25 OUR AVERAGE				
3000.44±0.07 ^{+0.07} _{-0.13} ±0.23	8.8k	¹ AAIJ	23AS LHCB	pp at 7, 8, 13 TeV
3000.7 ±1.0 ±0.2	38	YELTON	18B BELL	e^+e^- at $\Upsilon(4S)$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2999.2 ±0.9 ±0.9 ^{+0.19} _{-0.22}	24	² AAIJ	21AC LHCB	pp at 7, 8, 13 TeV
3000.4 ±0.2 ±0.1	1.3k	³ AAIJ	17AH LHCB	pp at 7, 8, 13 TeV

NODE=B173M

¹ The third uncertainty is due to the uncertainty in the Ξ_c^+ mass, taken to be the PDG 22 fit result 2467.71 ± 0.23 MeV.

² Measured via $\Omega_b^- \rightarrow \Omega_c^{*0} \pi^- \rightarrow \Xi_c^+ K^- \pi^-$. The third uncertainty is due to the uncertainty in the Ξ_c^+ mass.

³ See AAIJ 23AS

NODE=B173M;LINKAGE=C

NODE=B173M;LINKAGE=B

NODE=B173M;LINKAGE=D

 $\Omega_c(3000)^0$ WIDTH

NODE=B173W

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
3.83±0.23^{+1.59}_{-0.29}	8.8k	AAIJ	23AS LHCB	pp at 7, 8, 13 TeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
4.8 ±2.1 ±2.5	24	AAIJ	21AC LHCB	pp at 7, 8, 13 TeV
4.5 ±0.6 ±0.3	1.3k	¹ AAIJ	17AH LHCB	pp at 7, 8, 13 TeV

NODE=B173W

¹ See AAIJ 23AS.

NODE=B173W;LINKAGE=A

 $\Omega_c(3000)^0$ DECAY MODES

NODE=B173215;NODE=B173

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad \Xi_c^+ K^-$	seen

DESIG=1

 $\Omega_c(3000)^0$ BRANCHING RATIOS

NODE=B173225

$\Gamma(\Xi_c^+ K^-)/\Gamma_{\text{total}}$	EVTS	DOCUMENT ID	TECN	COMMENT	Γ_1/Γ
seen	8.8k	AAIJ	23AS LHCB	pp at 7, 8, 13 TeV	
seen	24	¹ AAIJ	21AC LHCB	pp at 7, 8, 13 TeV	
seen	38	² YELTON	18B BELL	e^+e^- at $\Upsilon(4S)$	
• • • We do not use the following data for averages, fits, limits, etc. • • •					
seen	1.3k	^{3,4} AAIJ	17AH LHCB	pp at 7, 8, 13 TeV	

NODE=B173R01
NODE=B173R01

¹ AAIJ 21AC report a significance of 6.2σ .

² YELTON 18B report a significance of 3.9σ

³ AAIJ 17AH report a significance of 20.4σ .

⁴ See AAIJ 23AS.

NODE=B173R01;LINKAGE=B
NODE=B173R01;LINKAGE=A
NODE=B173R01;LINKAGE=C
NODE=B173R01;LINKAGE=D $\Omega_c(3000)^0$ REFERENCES

NODE=B173

AAIJ	23AS PRL 131 131902	R. Aaij <i>et al.</i>	(LHCb Collab.)
PDG	22 PTEP 2022 083C01	R.L. Workman <i>et al.</i>	(PDG Collab.)
AAIJ	21AC PR D104 L091102	R. Aaij <i>et al.</i>	(LHCb Collab.)
YELTON	18B PR D97 051102	J. Yelton <i>et al.</i>	(BELLE Collab.)
AAIJ	17AH PRL 118 182001	R. Aaij <i>et al.</i>	(LHCb Collab.)

REFID=62449
REFID=61634
REFID=61439
REFID=58894
REFID=57925