$\Omega_c(2770)^0$

$I(J^P) = 0(\frac{3}{2}^+)$ Status: ∗∗∗

The natural assignment is that this goes with the $\Sigma_c(2520)$ and $\Xi_c(2645)$ to complete the lowest mass $J^P = \frac{3}{2}^+$ SU(3) sextet, part of the SU(4) 20-plet that includes the $\Delta(1232)$. But J and P have not been measured.

$\Omega_c(2770)^0$ MASS

The mass is obtained from the mass-difference measurement that follows.

VALUE (MeV)	*DOCUMENT ID*
2768.3±3.0 OUR FIT	Error includes scale factor of 1.2.

$\Omega_c(2770)^0 - \Omega_c^0$ MASS DIFFERENCE

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
70.8±1.5 OUR FIT					
70.8±1.0±1.1	105 ± 22	AUBERT,BE	06I	BABR	$e^+ e^- \approx \Upsilon(4S)$

$\Omega_c(2770)^0$ DECAY MODES

The $\Omega_c(2770)^0$–Ω_c^0 mass difference is too small for any strong decay to occur.

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\Omega_c^0 \gamma$	presumably 100%

$\Omega_c(2770)^0$ REFERENCES

AUBERT,BE 06I PRL 97 232001 B. Aubert *et al.* (BABAR Collab.)