BOTTOM, CHARMED MESONS ($B = C = \pm 1$)

$B_c^+ = c\overline{b}$, $B_c^- = \overline{c}\,b$, similarly for B_c^*'s

$B_c^\pm$

$I(J^P) = 0(0^-)$
I, J, P need confirmation.

Quantum numbers shown are quark-model predicitions.

Mass $m = 6.4 \pm 0.4$ GeV
Mean life $\tau = (0.46^{+0.18}_{-0.16}) \times 10^{-12}$ s

B_c^- modes are charge conjugates of the modes below.

B_c^+ DECAY MODES × B($\overline{b} \to$ B_c)	Fraction (Γ_i/Γ)	Confidence level	p (MeV/c)
The following quantities are not pure branching ratios; rather the fraction $\Gamma_i/\Gamma \times$ B($\overline{b} \to$ B_c).			
$J/\psi(1S)\ell^+\nu_\ell$ anything	$(5.2^{+2.4}_{-2.1}) \times 10^{-5}$		–
$J/\psi(1S)\pi^+$	$< 8.2 \times 10^{-5}$	90%	2448
$J/\psi(1S)\pi^+\pi^+\pi^-$	$< 5.7 \times 10^{-4}$	90%	2429
$J/\psi(1S)a_1(1260)$	$< 1.2 \times 10^{-3}$	90%	2255
$D^*(2010)^+\overline{D}^0$	$< 6.2 \times 10^{-3}$	90%	2546