Heavy Flavor Averaging Group

April 2005

Compilation of B^+ Baryonic Branching Fractions

All branching fractions are in units of 10^{-6}; limits are 90% CL

In PDG2004 New since PDG2004 (preliminary) New since PDG2004 (published)

RPP#	Mode	PDG2004 Avg.	BABAR	Belle	CLEO	New Avg.
201	$p\bar{p}\pi^+$	< 3.7		$3.06^{+0.73}_{-0.62} \pm 0.37$	< 160	$3.06^{+0.82}_{-0.72}$
204	$p\bar{p}K^+$	$4.3^{+1.2}_{-1.0}$	$6.7 \pm 0.9 \pm 0.6$	$5.30^{+0.45}_{-0.39} \pm 0.58$		$5.74^{+0.61}_{-0.60}$
	$\Theta^{++}\bar{p}$ †	New		< 0.091		< 0.091
	$\mathcal{G}K^+$ †	New		< 0.41		< 0.41
–	$p\bar{p}K^{*+}$	New		$10.31^{+3.62+1.34}_{-2.77-1.65}$		$10.31^{+3.86}_{-3.22}$
206	$p\overline{\Lambda}$	< 1.5		< 0.49	< 1.5	< 0.49
–	$\Lambda\overline{\Lambda}K^+$	New		$2.91^{+0.90}_{-0.70} \pm 0.38$		$2.91^{+0.98}_{-0.80}$
–	$\Lambda\overline{\Lambda}\pi^+$	New		< 2.8		< 2.8
214	$\overline{\Lambda}_c^- p\pi^+$	210 ± 70		$201 \pm 15 \pm 56$	$240 \pm 60^{+63}_{-62}$	213 ± 48
215	$\overline{\Lambda}_c^- p\pi^+\pi^0$	1800 ± 600			$1810 \pm 290^{+520}_{-500}$	1810^{+595}_{-578}
216	$\overline{\Lambda}_c^- p\pi^+\pi^+\pi^-$	2300 ± 700			$2250 \pm 250^{+630}_{-610}$	2250^{+677}_{-659}
218	$\overline{\Sigma}_c^0(2455)p$	< 80		$36.7^{+7.4}_{-6.6} \pm 10.2$	< 80	$36.7^{+12.6}_{-12.1}$
219	$\overline{\Sigma}_c^0(2520)p$	< 46		$12.6^{+5.6}_{-4.9} \pm 3.5$		$12.6^{+6.6}_{-6.0}$
–	$X_c^0(3350)\pi^+$ †	New		$38.7^{+7.7}_{-7.2} \pm 11.0$		$38.7^{+13.4}_{-13.1}$
220	$\overline{\Sigma}_c^0(2455)p\pi^0$	440 ± 180			$420 \pm 130 \pm 170$	420 ± 214
221	$\overline{\Sigma}_c^0(2455)p\pi^+\pi^-$	440 ± 170			$440 \pm 120 \pm 120$	440 ± 169
222	$\overline{\Sigma}_c^{--}(2455)p\pi^+\pi^+$	280 ± 120			$280 \pm 90 \pm 90$	280 ± 127
223	$\overline{\Lambda}_c^-(2593)p\pi^+$	< 190			< 190	< 190

† Product BF - daughter BF taken to be 100%: $\Theta(1540)^{++} \to K^+p$ (pentaquark candidate); $\mathcal{G}(2220) \to p\bar{p}$ (glueball candidate); $X_c^0(3350) \to \overline{\Lambda}_c^- p$.

Heavy Flavor Averaging Group
April 2005

Compilation of B^0 Baryonic Branching Fractions

All branching fractions are in units of 10^{-6}; limits are 90% CL

In PDG2004 New since PDG2004 (preliminary) New since PDG2004 (published)

RPP#	Mode	PDG2004 Avg.	BABAR	Belle	CLEO	New Avg.
212	$p\overline{p}$	< 1.2	< 0.27	< 0.41	< 1.4	< 0.27
214	$p\overline{p}K^0$	< 7.2		$1.20^{+0.32}_{-0.22} \pm 0.14$		$1.20^{+0.35}_{-0.26}$
	Θ^+K^0 †	New		< 0.23		< 0.23
–	$p\overline{p}K^{*0}$	New		< 7.6		< 7.6
215	$p\overline{\Lambda}\pi^-$	$4.0^{+1.1}_{-1.0}$		$3.27^{+0.62}_{-0.51} \pm 0.39$	< 13	$3.27^{+0.73}_{-0.64}$
216	$p\overline{\Lambda}K^-$	< 0.82		< 0.82		< 0.82
217	$p\overline{\Sigma}^0\pi^-$	< 3.8		< 3.8		< 3.8
218	$\Lambda\overline{\Lambda}$	< 1.0		< 0.69	< 1.2	< 0.69
224	$\overline{\Lambda}_c^- p\pi^+\pi^-$	1300 ± 400		$1030 \pm 90 \pm 295$	$1670 \pm 190^{+470}_{-460}$	1207 ± 262
225	$\overline{\Lambda}_c^- p$	22 ± 8		$21.9^{+5.6}_{-4.9} \pm 6.5$	< 90	$21.9^{+8.6}_{-8.1}$
229	$\overline{\Sigma}_c^{--}(2520)p\pi^+$	160 ± 70		$104 \pm 23 \pm 30$		104 ± 37
230	$\overline{\Sigma}_c^0(2520)p\pi^-$	< 121		$33 \pm 19 \pm 10$		33 ± 21
231	$\overline{\Sigma}_c^0(2455)p\pi^-$	100 ± 80		$97 \pm 21 \pm 30$	$220 \pm 60 \pm 64$	115 ± 33
232	$\overline{\Sigma}_c^{--}(2455)p\pi^+$	280 ± 90		$115 \pm 22 \pm 33$	$370 \pm 80 \pm 113$	134 ± 38
233	$\overline{\Lambda}_c^-(2593)p$	< 110			< 110	< 110

† Product BF - daughter BF taken to be 100%: $\Theta(1540)^+ \to pK^0$ (pentaquark candidate).

Charmless Baryonic Decay References

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