

Heavy Flavor Averaging Group
March 2007

Compilation of B^+ Baryonic Branching Fractions
All branching fractions are in units of 10^{-6} ; limits are 90% CL

In PDG2006 New since PDG2006 (preliminary) New since PDG2006 (published)

RPP#	Mode	PDG2006 Avg.	BABAR	Belle	CLEO	New Avg.
286	$p\bar{p}\pi^+$	$3.1^{+0.8}_{-0.7}$ §		$3.06^{+0.73}_{-0.62} \pm 0.37$ ‡	< 160	$3.06^{+0.82}_{-0.72}$
289	$p\bar{p}K^+$	5.6 ± 1.0 §	$6.7 \pm 0.5 \pm 0.4$ †	$5.30^{+0.45}_{-0.39} \pm 0.58$ ‡		6.10 ± 0.48
290	$\Theta^{++}\bar{p}$ *	< 0.091	< 0.09	< 0.091		< 0.09
291	$f_J(2221)K^+$ *	< 0.41		< 0.41		< 0.41
292	$p\bar{\Lambda}(1520)$	< 1.5	< 1.5			< 1.5
294	$p\bar{p}K^{*+}$	$10.3^{+3.6+1.3}_{-2.8-1.7}$ ‡		$10.3^{+3.6+1.3}_{-2.8-1.7}$ ‡		$10.3^{+3.8}_{-3.3}$
295	$p\bar{\Lambda}$	< 0.49		< 0.29	< 1.5	< 0.29
299	$\Lambda\bar{\Lambda}\pi^+$	< 2.8 ‡		< 2.8 ‡		< 2.8 ‡
300	$\Lambda\bar{\Lambda}K^+$	$2.9^{+0.9}_{-0.7} \pm 0.4$ ‡		$2.9^{+0.9}_{-0.7} \pm 0.4$ ‡		$2.9^{+1.0}_{-0.8}$

† Charmonium decays to $p\bar{p}$ have been statistically subtracted.

‡ The charmonium mass region has been vetoed. * Product BF - daughter BF taken to be 100%:
 $\Theta(1540)^{++} \rightarrow K^+p$ (pentaquark candidate);

Heavy Flavor Averaging Group
March 2007

Compilation of B^0 Baryonic Branching Fractions
All branching fractions are in units of 10^{-6} ; limits are 90% CL

In PDG2006 New since PDG2006 (preliminary) New since PDG2006 (published)

RPP#	Mode	PDG2006 Avg.	BABAR	Belle	CLEO	New Avg.
266	$p\bar{p}$	< 0.27	< 0.27	< 0.10	< 1.4	< 0.10
268	$p\bar{p}K^0$	$2.1_{-0.4}^{+0.6} \text{ §}$		$2.40_{-0.44}^{+0.64} \pm 0.28 \text{ ‡}$		$2.40_{-0.52}^{+0.70}$
269	$\Theta^+ K^0 \text{ †}$	< 0.23		< 0.23		< 0.23
270	$p\bar{p}K^{*0}$	$< 7.6 \text{ ‡}$		$< 7.6 \text{ ‡}$		$< 7.6 \text{ ‡}$
271	$p\bar{\Lambda}\pi^-$	$2.6 \pm 0.5 \text{ §}$	$3.30 \pm 0.53 \pm 0.31$	$3.27_{-0.51}^{+0.62} \pm 0.39$	< 13	$3.29_{-0.44}^{+0.47}$
272	$p\bar{\Lambda}K^-$	< 0.82		< 0.82		< 0.82
273	$p\bar{\Sigma}^0\pi^-$	< 3.8		< 3.8		< 3.8
274	$\Lambda\bar{\Lambda}$	< 0.69		< 0.32	< 1.2	< 0.32

§Di-baryon mass is less than $2.85 \text{ GeV}/c^2$; ‡ The charmonium mass region has been vetoed.

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

Charmless Baryonic Decay References

- [1] Belle Collaboration, (K. Abe *et al.*), BELLE-CONF-0634, contributed paper to ICHEP06.
- [2] Belle Collaboration, (M. Wang *et al.*), Phys. Rev. Lett. **92**, 131801 (2004).
- [3] Belle Collaboration (M.-Z. Wang *et al.*), Phys. Rev. Lett. **90**, 201802 (2003).
- [4] *BABAR* Collaboration, (B. Aubert *et al.*), hep-ex/0608020 (ICHEP06 contributed paper).
- [5]
- [6] CLEO Collaboration (A. Bornheim *et al.*), Phys. Rev. D **68**, 052002 (2003).
- [7]
- [8] CLEO Collaboration (C. Bebek *et al.*), Phys. Rev. Lett. **62**, 8 (1989).
- [9]
- [10] *BABAR* Collaboration, (B. Aubert *et al.*), Phys. Rev. D **69**, 091503 (2004).
- [11] Belle Collaboration (Y.-J. Lee *et al.*), Phys. Rev. Lett. **93**, 211801 (2004).
- [12] *BABAR* Collaboration (B. Aubert *et al.*), Phys. Rev. D **72** 051101 (2005).
- [13] Belle Collaboration (M.-Z. Wang *et al.*), Phys. Lett. B **617**, 141 (2005).