

Heavy Flavor Averaging Group
April 2008

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	$p\bar{p}\pi^+$	$3.1^{+0.8}_{-0.7}$	$1.69 \pm 0.29 \pm 0.26$ †	$1.68^{+0.26}_{-0.22} \pm 0.12$ ‡	< 160	$1.68^{+0.23}_{-0.21}$
289	$p\bar{p}K^+$	5.6 ± 1.0	$6.7 \pm 0.5 \pm 0.4$ †	$5.98^{+0.29}_{-0.27} \pm 0.39$ ‡		$6.24^{+0.39}_{-0.38}$
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	$p\bar{p}K^{*+}$	$10.3^{+3.6+1.3}_{-2.8-1.7}$	$5.3 \pm 1.5 \pm 1.3$ †	$3.38^{+0.73}_{-0.60} \pm 0.39$ ‡		$3.64^{+0.79}_{-0.70}$
–	$f_J(2221)K^{*+}$ *	New	< 0.77			< 0.77
295	$p\bar{\Lambda}$	< 0.49		< 0.32	< 1.5	< 0.32
–	$p\bar{\Lambda}\pi^0$	New		$3.00^{+0.61}_{-0.53} \pm 0.33$		$3.00^{+0.69}_{-0.62}$
–	$p\bar{\Sigma}(1385)^0$	New		< 0.47		< 0.47
–	$\Delta^+\bar{\Lambda}$	New		< 0.82		< 0.82
299	$\Lambda\bar{\Lambda}\pi^+$	< 2.8		< 2.8 ‡		< 2.8 ‡
300	$\Lambda\bar{\Lambda}K^+$	$2.9^{+0.9}_{-0.7} \pm 0.4$		$2.9^{+0.9}_{-0.7} \pm 0.4$ ‡		$2.9^{+1.0}_{-0.8}$
301	$\bar{\Delta}^0 p$	< 380		< 1.42	< 380	< 1.42
302	$\Delta^{++}\bar{p}$	< 150		< 0.14	< 150	< 0.14

§Di-baryon mass is less than $2.85 \text{ GeV}/c^2$; † 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);

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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	< 0.11	< 1.4	< 0.11
268	$p\bar{p}K^0$	$2.1^{+0.6}_{-0.4}$	$3.0 \pm 0.5 \pm 0.3$ †	$2.51^{+0.35}_{-0.29} \pm 0.21$ ‡		$2.66^{+0.34}_{-0.32}$
269	$\Theta^+\bar{p}$ *	< 0.23	< 0.05	< 0.23		< 0.05
–	$f_J(2221)K^0$ *	New	< 0.45			< 0.45
270	$p\bar{p}K^{*0}$	< 7.6	$1.47 \pm 0.45 \pm 0.40$ †	$1.18^{+0.29}_{-0.25} \pm 0.11$ ‡		$1.24^{+0.28}_{-0.25}$
–	$f_J(2221)K^{*0}$ *	New	< 0.15			< 0.15
271	$p\bar{\Lambda}\pi^-$	2.6 ± 0.5	$3.30 \pm 0.53 \pm 0.31$	$3.23^{+0.33}_{-0.29} \pm 0.29$	< 13	$3.25^{+0.36}_{-0.34}$
–	$p\bar{\Sigma}(1385)^-$	New		< 0.26		< 0.26
–	$\Delta^0\bar{\Lambda}$	New		< 0.93		< 0.93
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 $2.85 \text{ GeV}/c^2$; † 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%; $\Theta(1540)^+ \rightarrow pK^0$ (pentaquark candidate).

Charmless Baryonic Decay References

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