

Heavy Flavor Averaging group (HFLAV) - August 2017
 B^+ Branching Fractions (decays with kaons part 1) ($\times 10^{-6}$) - UL at 90% CL
 In PDG2014 New since PDG2014 (preliminary) New since PDG2014 (published)

RPP#	Mode	PDG2014 Avg.	BABAR	Belle	CLEO	CDF	LHCb	Our Avg.
262	$K^0 \pi^+$	23.7 ± 0.8	$23.9 \pm 1.1 \pm 1.0$ [1]	$23.97 \pm 0.53 \pm 0.71$ [2]	$18.8^{+3.7+2.1}_{-3.3-1.8}$ [3]			23.79 ± 0.75
263	$K^+ \pi^0$	12.9 ± 0.5	$13.6 \pm 0.6 \pm 0.7$ [4]	$12.62 \pm 0.31 \pm 0.56$ [2]	$12.9^{+2.4+1.2}_{-2.2-1.1}$ [3]			$12.94^{+0.52}_{-0.51}$
264	ηK^+	70.6 ± 2.5	$71.5 \pm 1.3 \pm 3.2$ [5]	$69.2 \pm 2.2 \pm 3.7$ [6]				70.6 ± 2.7
265	$\eta' K^{*+}$	$4.8^{+1.8}_{-1.6}$	$4.8^{+1.6 \pm 0.8}_{-1.4}$ [7]	< 2.9 [8]				$4.8^{+1.8}_{-1.6}$
266	$\eta' K_0^*(1430)^+$	5.2 ± 2.1	$5.2 \pm 1.9 \pm 1.0$ [7]					5.2 ± 2.1
267	$\eta' K_2^*(1430)^+$	28 ± 5	$28.0^{+4.6 \pm 2.6}_{+0.33}$ [7]					$28.0^{+5.3}_{-5.0}$
268	ηK^+	2.4 ± 0.4	$2.94^{+0.33}_{-0.34} \pm 0.21$ [5]	$2.12 \pm 0.23 \pm 0.11$ [9]	$2.2^{+2.8}_{-8.2}$ [10]			$2.36^{+0.52}_{-0.21}$
269	ηK^{*+}	19.3 ± 1.6	$18.9 \pm 1.8 \pm 1.3$ [11]	$19.3^{+2.0}_{-1.9} \pm 1.5$ [12]				19.3 ± 1.6
270	$\eta K_0^*(1430)^+$	18 ± 4	$18.2 \pm 2.6 \pm 2.6$ [11]					18.2 ± 3.7
271	$\eta K_2^*(1430)^+$	9.1 ± 3.0	$9.1 \pm 2.7 \pm 1.4$ [11]					9.1 ± 3.0
272	$\eta(1295)K^+$	$2.9^{+0.8}_{-0.7}$	$2.9^{+0.8 \pm 0.2 \dagger}_{-0.7}$ [13]					$2.9^{+0.8}_{-0.7}$
274	$\eta(1405)K^+$	< 1.2	< 1.2 [13]					< 1.2
275	$\eta(1475)K^+$	$13.8^{+2.1}_{-1.8}$	$13.8^{+1.8+1.0}_{-1.7-0.6}$ [13]					$13.8^{+2.1}_{-1.8}$
276	$f_1(1285)K^+$	< 2.0	< 2.0 [13]					< 2.0
277	$f_1(1420)K^+$	< 2.9	< 2.9 [13]					< 2.9
279	$\phi(1680)K^+$	< 3.4	< 3.4 [13]					< 3.4
280	$f_0(1500)K^+$	3.7 ± 2.2	$3.7 \pm 2.2 \S$ [14,15]	$6.8 \pm 0.4 \pm 0.4$ [17]	$3.2^{+2.4}_{-1.9} \pm 0.8$ [18]			3.7 ± 2.2
281	ωK^+	6.7 ± 0.8	$6.3 \pm 0.5 \pm 0.3$ [16]					6.5 ± 0.4
282	ωK^{*+}	< 7.4	< 7.4 [19]					< 7.4
283	$\omega(K \pi)_0^+$	28 ± 4	$27.5^{+3.0}_{-2.6}$ [19]					$27.5^{+3.0}_{-2.6}$
284	$\omega K_0^*(1430)^+$	24 ± 5	$24.0 \pm 2.6 \pm 4.4$ [19]					24.0 ± 5.1
285	$\omega K_2^*(1430)^+$	21 ± 4	$21.5 \pm 3.6 \pm 2.4$ [19]					21.5 ± 4.3
286	$\omega_0(980)K^0 \dagger$	< 3.9	< 3.9 [20]					< 3.9
287	$\omega_0(980)^0 K^+ \dagger$	< 2.5	< 2.5 [20]					< 2.5
288	$K^{*+} \pi^+$	10.1 ± 0.9	$10.8 \pm 0.6^{+1.2}_{-1.4}$ [14]	$9.7 \pm 0.6^{+0.8}_{-0.9}$ [21]				$10.1^{+0.8}_{-0.9}$
289	$K^{*+} \pi^0$	8.2 ± 1.9	$8.2 \pm 1.5 \pm 1.1$ [22]					8.2 ± 1.8
290	$K^+ \pi^+ \pi^-$	51 ± 2.9	$54.4 \pm 1.1 \pm 4.6$ [14]					51.0 ± 3.0
291	$K^+ \pi^+ \pi^- (NR)$	$16.3^{+2.1}_{-1.5}$	$9.3 \pm 1.0^{+6.9}_{-1.7}$ [14]	$16.9 \pm 1.3^{+1.7}_{-1.6}$ [21]				16.3 ± 2.0
292	$\omega(782)K^+ (K^+ \pi^+ \pi^-)$	6 ± 9	$5.9^{+8.8+0.5}_{-0.2}$ [14]					$5.9^{+8.8}_{-0.9}$
293	$f_0(980)K^+ (K^+ \pi^+ \pi^-) \dagger$	$9.4^{+1.0}_{-1.2}$	$10.3 \pm 0.5^{+2.0}_{-1.4}$ [14]	$8.8 \pm 0.8^{+0.9}_{-1.8}$ [21]				$9.4^{+0.9}_{-1.0}$
294	$f_2(1270)^0 K^+ (K^+ \pi^+ \pi^-)$	1.07 ± 0.27	$0.88^{+0.38+0.01}_{-0.33-0.03}$ [14]	$1.33 \pm 0.30^{+0.23}_{-0.34}$ [21]				1.07 ± 0.29
295	$f_0(1370)^0 K^+ (K^+ \pi^+ \pi^-) \dagger$	< 10.7	< 10.7 [23]					< 10.7
296	$\rho(1450)^0 K^+ (K^+ \pi^+ \pi^-)$	< 11.7	< 11.7 [23]					< 11.7
297	$f_2'(1525)K^+ (K^+ \pi^+ \pi^-)$	< 3.4	< 3.4 [23]					< 3.4
298	$\rho^0 K^+ (K^+ \pi^+ \pi^-)$	3.7 ± 0.5	$3.56 \pm 0.45^{+0.57}_{-0.46}$ [14]	$3.89 \pm 0.47^{+0.43}_{-0.41}$ [21]				$3.74^{+0.49}_{-0.46}$
299	$K_0^*(1430)^0 \pi^+ (K^+ \pi^+ \pi^-)$	45 ± 7	$32.0 \pm 1.2^{+10.8}_{-6.0}$ [14]	$51.6 \pm 1.7^{+7.0}_{-7.5}$ [21]				45.1 ± 6.3
300	$K_2^*(1430)^0 \pi^+ (K^+ \pi^+ \pi^-)$	$5.6^{+2.2}_{-1.5}$	$5.6 \pm 1.2^{+1.8}_{-0.8}$ [14]	< 6.9 [24]				$5.6^{+2.2}_{-1.4}$
301	$K^*(1410)^0 \pi^+ (K^+ \pi^+ \pi^-)$	< 45	< 45 [24]	< 45 [24]				< 45
302	$K^*(1680)^0 \pi^+ (K^+ \pi^+ \pi^-)$	< 12	< 12 [23]	< 12 [24]				< 12
303	$K^+ \pi^0 \pi^0$	16.2 ± 1.9	$16.2 \pm 1.2 \pm 1.5$ [22]					16.2 ± 1.9
304	$f_0(980)K^+ (K^+ \pi^0 \pi^0)$	2.8 ± 0.8	$2.8 \pm 0.6 \pm 0.5$ [22]					2.8 ± 0.8
305	$K^+ \pi^+ \pi^+$	< 0.95	< 0.95 [25]	< 4.5 [26]				< 0.046 [27]
306	$K^+ \pi^+ \pi^+ (NR)$	< 56	< 56 [29]					< 56
307	$K_1(1270)^0 \pi^+$	< 40	< 40 [29]					< 40
308	$K_1(1400)^0 \pi^+$	< 39	< 39 [29]					< 39
309	$K^0 \pi^+ \pi^0$	< 66	< 66 [31]					< 66
310	$\rho^+ K^0 (K^0 \pi^+ \pi^0)$	8.0 ± 1.5	$8.0^{+1.4 \pm 0.6}_{-1.3}$ [31]					$8.0^{+1.5}_{-1.4}$
311	$K^+ \pi^+ \pi^+ \pi^-$	75 ± 10	$75.3 \pm 6.0 \pm 8.1$ [32]					75.3 ± 10.1
312	$K^+ \pi^+ \rho^0$	4.6 ± 1.1	$4.6 \pm 1.0 \pm 0.4$ [33]					4.6 ± 1.1
313	$f_0(980)K^{*+} \dagger$	4.2 ± 0.7	$4.2 \pm 0.6 \pm 0.3$ [33]					4.2 ± 0.7

Results for LHCb are relative BFs converted to absolute BFs.

CLEO upper limits that have been greatly superseded are not shown.

\dagger In this product of BFs, all daughter BFs not shown are set to 100%.

\ddagger The value quoted is $\mathcal{B}(B^+ \rightarrow \eta(1295)K^+) \times \mathcal{B}(\eta(1295) \rightarrow \eta\pi\pi^0)$.

\S Average of results in $K_S^0 K^+ K^-$, $K_S^0 K^0 K^+$ [15] and $K^+ \pi^+ \pi^-$ [14]. Includes an f_X resonance with parameters that are compatible with $f_0(1500)$.

Heavy Flavor Averaging group (HFLAV) - August 2017
 B^+ Branching Fractions (decays with kaons part 2) ($\times 10^{-6}$) - UL at 90% CL
 In PDG2014 New since PDG2014 (preliminary) New since PDG2014 (published) LHCb

RPP#	Mode	PDG2014 Avg.	BaBar	Belle	CLEO	CDF	LHCb	Our Avg.
314	$a_1^+ K^0$	35 ± 7	34.9 ± 5.0 ± 4.4 [34]					34.9 ± 6.7
315	$b_1^+ K^0$ †	9.6 ± 1.9	9.6 ± 1.7 ± 0.9 [35]					9.6 ± 1.9
317	$K_1(1400)^+ \rho^0$	< 780	< 780 ¶					< 780 ¶
318	$K_2(1430)^+ \rho^0$	< 1500	< 1500 ¶					< 1500 ¶
319	$b_1^0 K^{*+}$ †	9.1 ± 2.0	9.1 ± 1.7 ± 1.0 [37]					9.1 ± 2.0
320	$b_1^+ K^{*0}$ †	< 5.9	< 5.9 [38]					< 5.9
321	$b_1^0 K^{*+}$ †	< 6.7	< 6.7 [38]					< 6.7
322	$K^+ \bar{K}^0$	1.31 ± 0.17	1.61 ± 0.44 ± 0.09 [1]	1.11 ± 0.19 ± 0.05 [2]	< 24	[30]	1.52 ± 0.21 ± 0.05[39]	1.32 ± 0.14
323	$\bar{K}^0 K^+ \pi^0$	< 24						< 24
324	$K^+ K_S K_S$	10.8 ± 0.6	10.6 ± 0.5 ± 0.3 [15]	13.4 ± 1.9 ± 1.5 [26]				10.8 ± 0.6
325	$f_0(980) K^+ (K^+ K_S K_S)$	14.7 ± 3.3	14.7 ± 2.8 ± 1.8 [15]					14.7 ± 3.3
326	$f_0(1710) K^+ (K^+ K_S K_S)$	0.48 ± 0.40	0.48 ± 0.40 ± 0.11 [15]					0.48 ± 0.41
327	$K^+ K_S K_S (NR)$	20 ± 4	19.8 ± 3.7 ± 2.5 [15]					19.8 ± 4.5
328	$K_S K_S \pi^+$	< 0.51	< 0.51 [40]	< 3.2 [26]				< 0.51
329	$K^+ K^+ \pi^+$	5.0 ± 0.7	5.0 ± 0.5 ± 0.5 [41]	5.38 ± 0.40 ± 0.35[42]	< 75	[28]		5.24 ± 0.42
330	$K^+ K^- \pi^+ (NR)$	< 75						< 75
331	$\bar{K}^{*0} K^+ (K^+ K^- \pi^+)$	< 1.1	< 1.1 [43]					< 1.1
332	$\bar{K}_0^*(1430)^0 K^+ (K^+ K^- \pi^+)$	< 2.2	< 2.2 [43]					< 2.2
333	$K^+ K^+ \pi^-$	< 0.16	< 0.16 [25]	< 2.4 [26]				< 0.011
334	$K^+ K^+ \pi^- (NR)$	< 87.9						< 87.9
335	$f_2'(1525) K^+$	1.8 ± 0.5	1.8 ± 0.5 † [15]					1.8 ± 0.5
336	$f_J(2220) K^+$	< 1.2		< 1.2 [44]				< 1.2
337	$K^{*+} \pi^+ K^-$	< 11.8						< 11.8
338	$K^{*+} \bar{K}^{*0}$	1.2 ± 0.5	1.2 ± 0.5 ± 0.1 [45]	< 1.31 [46]				1.2 ± 0.5
339	$K^{*+} K^+ \pi^-$	< 6.1	< 6.1 [32]					< 6.1
340	$K^+ K^- K^+$	34.0 ± 1.4	34.6 ± 0.6 ± 0.9 [15]					34.0 ± 1.0
341	$\phi K^+ (K^+ K^- K^+)$	8.8 ± 0.7	9.2 ± 0.4 ± 0.5 [15]	30.6 ± 1.2 ± 2.3 [24]				8.8 ± 0.5
342	$f_0(980) K^+ (K^+ K^- K^+)$	9.4 ± 3.2	9.4 ± 1.6 ± 2.8 [15]	9.6 ± 0.9 ± 1.1 [24]	5.5 ^{+2.1} _{-1.8} ± 0.6 [47]	7.6 ± 1.3 ± 0.6 [48]		9.4 ± 1.6
343	$a_2(1320) K^+ (K^+ K^- K^+)$ †	< 1.1		< 1.1 [24]				< 1.1
344	$X_0(1550) K^+ (K^+ K^- K^+)$	4.3 ± 0.7	4.3 ± 0.60 ± 0.30 [49]					4.30 ± 0.67
345	$\phi(1680) K^+ (K^+ K^- K^+)$ †	< 0.8		< 0.8 [24]				< 0.8
346	$f_0(1710) K^+ (K^+ K^- K^+)$ †	1.1 ± 0.6	1.12 ± 0.25 ± 0.50 [15]					1.12 ± 0.56
347	$K^+ K^- K^+ (NR)$	23.8 ^{+2.8} _{-5.0}	22.8 ± 2.7 ± 7.6 [15]	24.0 ± 1.5 ^{+2.6} _{-6.0} [24]				23.8 ^{+2.9} _{-5.1}
348	$K^{*+} K^+ K^-$	36 ± 5	36.2 ± 3.3 ± 3.6 [32]					36.2 ± 4.9
349	ϕK^{*+}	10.0 ± 2.0	11.2 ± 1.0 ± 0.9 [50]	6.7 ^{+2.1} _{-1.9} ± 0.7 [51]	10.6 ^{+6.4} _{-4.9} ± 1.8 [47]			10.0 ± 1.1
350	$\phi(K\pi)^+$	8.3 ± 1.6	8.3 ± 1.4 [52]					8.3 ± 1.4
351	$\phi K_1(1270)^+$	6.1 ± 1.9	6.1 ± 1.6 ± 1.1 [52]					6.1 ± 1.9
352	$\phi K_1(1400)^+$	< 3.2	< 3.2 [52]					< 3.2
353	$\phi K^*(1410)^+$	< 4.3	< 4.3 [52]					< 4.3
354	$\phi K_0^*(1430)^+$	7.0 ± 1.6	7.0 ± 1.3 ± 0.9 [52]					7.0 ± 1.6
355	$\phi K_2^*(1430)^+$	8.4 ± 2.1	8.4 ± 1.8 ± 1.0 [52]					8.4 ± 2.1
356	$\phi K_2(1770)^+$	< 15	< 15 [52]					< 15
357	$\phi K_2(1820)^+$	< 16.3	< 16.3 [52]					< 16.3
358	$a_1^+ K^{*0}$	< 3.6	< 3.6 [53]					< 3.6
359	$\phi \phi K^+ \S$	5.0 ± 1.2	5.6 ± 0.5 ± 0.3 [54]	2.6 ^{+1.1} _{-0.9} ± 0.3 [44]				5.0 ± 0.5
360	$\eta' \eta' K^+$	< 25	< 25 [55]					< 25
361	$K^+ \omega \phi$	< 1.9		< 1.9 [56]				< 1.9
362	$K^+ X(1812)^+$ †	< 0.32		< 0.32 [56]				< 0.32

Results for CDF and LHCb are relative BF's converted to absolute BF's.

CLEO upper limits that have been greatly superseded are not shown.

† In this product of BF's, all daughter BF's not shown are set to 100%.

‡ Average of results in $K_S^0 K^+ K^-$, $K_S^0 K^0 K^+$ [15].

§ $M_{\phi\phi} < 2.85 \text{ GeV}/c^2$.

¶ Result from ARGUS. Cited in the BaBar column to avoid adding a column to the table.

Heavy Flavor Averaging group (HFLAV) - August 2017
B⁺ Branching Fractions (decays without kaons) ($\times 10^{-6}$) - UL at 90% CL
 In PDG2014 New since PDG2014 (preliminary) New since PDG2014 (published)

RPP#	Mode	PDG2014 Avg.	BABAR	Belle	CLEO	CDF	LHCb	Our Avg.
379	$\pi^+\pi^0$	5.5 ± 0.4	$5.02 \pm 0.46 \pm 0.29$ [4]	$5.86 \pm 0.26 \pm 0.38$ [2]	$4.6^{+1.8+0.6}_{-1.6-0.7}$ [3]			$5.48^{+0.35}_{-0.34}$
380	$\pi^+\pi^+\pi^-$	15.2 ± 1.4	$15.2 \pm 0.6 \pm 1.3$ [57]					15.2 ± 1.4
381	$\rho^0\pi^+$	8.3 ± 1.2	$8.1 \pm 0.7^{+1.3}_{-1.6}$ [57]	$8.0^{+2.3}_{-2.0} \pm 0.7$ [58]	$10.4^{+3.3}_{-3.4} \pm 2.1$ [18]			$8.3^{+1.2}_{-1.3}$
382	$f_0(980)\pi^+\dagger$	< 1.5	< 1.5 [57]					< 1.5
383	$f_2(1270)\pi^+$	$1.6^{+0.7}_{-0.4}$	$1.57 \pm 0.42^{+0.55}_{-0.25}$ [57]					$1.57^{+0.69}_{-0.49}$
384	$\rho(1450)^0\pi^+\dagger$	$1.4^{+0.6}_{-0.9}$	$1.4 \pm 0.4^{+0.5}_{-0.8}$ [57]					$1.4^{+0.6}_{-0.9}$
385	$f_0(1370)\pi^+\dagger$	< 4.0	< 4.0 [57]					< 4.0
387	$\pi^+\pi^-\pi^+(NR)$	$5.3^{+1.5}_{-1.1}$	$5.3 \pm 0.7^{+1.3}_{-0.8}$ [57]					$5.3^{+1.5}_{-1.1}$
388	$\pi^+\pi^0\pi^0$	< 890	< 890 † [59]					< 890 †
389	$\rho^+\pi^0$	10.9 ± 1.4	$10.2 \pm 1.4 \pm 0.9$ [60]	$13.2 \pm 2.3^{+1.4}_{-1.9}$ [61]				$10.9^{+1.4}_{-1.5}$
391	$\rho^+\rho^0$	24.0 ± 1.9	$23.7 \pm 1.4 \pm 1.4$ [62]	$31.7 \pm 7.1^{+3.8}_{-6.7}$ [63]				$24.0^{+1.9}_{-2.0}$
392	$f_0(980)\rho^+\dagger$	< 2.0	< 2.0 [62]					< 2.0
393	$a_1^+\pi^0$	26 ± 7	$26.4 \pm 5.4 \pm 4.1$ [64]					26.4 ± 6.8
394	$a_1^0\pi^+$	20 ± 6	$20.4 \pm 4.7 \pm 3.4$ [64]					20.4 ± 5.8
395	$\omega\pi^+$	6.9 ± 0.5	$6.7 \pm 0.5 \pm 0.4$ [16]					6.9 ± 0.5
396	$\omega\rho^+$	15.9 ± 2.1	$15.9 \pm 1.6 \pm 1.4$ [19]					15.9 ± 2.1
397	$\eta\pi^+$	4.02 ± 0.27	$4.00 \pm 0.40 \pm 0.24$ [5]	$4.07 \pm 0.26 \pm 0.21$ [9]	$11.3^{+3.3}_{-2.9} \pm 1.4$ [18]			4.02 ± 0.27
398	$\eta\rho^+$	7.0 ± 2.9	$9.9 \pm 1.2 \pm 0.8$ [66]					6.9 ± 1.0
399	$\eta'\pi^+$	2.7 ± 0.9	$3.5 \pm 0.6 \pm 0.2$ [5]	$4.1^{+1.4}_{-1.3} \pm 0.4$ [12]				$2.7^{+0.5}_{-0.4}$
400	$\eta'\rho^+$	9.7 ± 2.2	$9.7^{+1.9}_{-1.8} \pm 1.1$ [7]	$1.8^{+0.7}_{-0.6} \pm 0.1$ [6]				$9.7^{+2.2}_{-2.1}$
401	$\phi\pi^+$	< 0.15	< 0.24 [67]	< 5.8 [8]			< 0.15 [69]	< 0.15
402	$\phi\rho^+$	< 3.0	< 3.0 [70]	< 0.33 [68]				< 3.0
403	$a_0(980)^0\pi^+\dagger$	< 5.8	< 5.8 [20]					< 5.8
404	$a_0(980)^+\pi^0\dagger$	< 1.4	< 1.4 [71]					< 1.4
405	$\pi^+\pi^+\pi^-\pi^-\pi^-$	< 860	< 860 † [59]					< 860 †
406	$\rho^0 a_1(1260)^+$	< 620						< 620
407	$\rho^0 a_2(1320)^+$	< 720						< 720
408	$b_1^0\pi^+\dagger$	6.7 ± 2.0	$6.7 \pm 1.7 \pm 1.0$ [37]					6.7 ± 2.0
409	$b_1^+\pi^0\dagger$	< 3.3	< 3.3 [35]					< 3.3
410	$\pi^+\pi^+\pi^-\pi^-\pi^-\pi^0$	< 6300	< 6300 † [59]					< 6300 †
411	$b_1^+\rho^0\dagger$	< 5.2	< 5.2 [38]					< 5.2
413	$b_1^0\rho^+\dagger$	< 3.3	< 3.3 [38]					< 3.3

Results for LHCb are relative BF's converted to absolute BF's.

CLEO upper limits that have been greatly superseded are not shown.

† In this product of BF's, all daughter BF's not shown are set to 100%.

‡ Result from ARGUS. Cited in the BABAR column to avoid adding a column to the table.

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 B^0 Branching Fractions (decays with kaons part 1) ($\times 10^{-6}$) - UL at 90% CL
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RPP#	Mode	PDG2014 Avg.	BABAR	Belle	CLEO	CDF	LHCb	Our Avg.
227	$K^+ \pi^-$	19.6 ± 0.5	$19.1 \pm 0.6 \pm 0.6$ [73]	$20.0 \pm 0.34 \pm 0.60$ [2]	$18.0^{+2.3+1.2}_{-2.1-0.9}$ [3]			$19.57^{+0.53}_{-0.52}$
228	$K^0 \pi^0$	9.9 ± 0.5	$10.1 \pm 0.6 \pm 0.4$ [74]	$9.68 \pm 0.46 \pm 0.50$ [2]	$12.8^{+4.0+1.7}_{-3.3-1.4}$ [3]			9.93 ± 0.49
229	$\eta' K^0$	66 ± 4	$68.5 \pm 2.2 \pm 3.1$ [5]	$58.9^{+3.6}_{-3.5} \pm 4.3$ [6]	$89^{+18}_{-16} \pm 9$ [10]			66.1 ± 3.1
230	$\eta' K^{*0}$	3.1 ± 0.9	$3.1^{+0.9}_{-0.8} \pm 0.3$ [7]	$2.6 \pm 0.7 \pm 0.2$ [75]	$7.8^{+7.7}_{-5.7}$ [10]			$2.8^{+0.6}_{-0.5}$
231	$\eta' K_0^*(1430)^0$	6.3 ± 1.6	$6.3 \pm 1.3 \pm 0.9$ [7]					6.3 ± 1.6
232	$\eta' K_2^*(1430)^0$	13.7 ± 3.2	$13.7^{+3.0}_{-1.6} \pm 1.2$ [7]					$13.7^{+3.2}_{-2.7}$
233	ηK^0	$1.23^{+0.27}_{-0.24}$	$1.15^{+0.38}_{-0.38} \pm 0.09$ [5]	$1.27^{+0.33}_{-0.29} \pm 0.08$ [9]	$0.0^{+3.0}_{-0.0}$ [10]			$1.23^{+0.27}_{-0.24}$
234	ηK^{*0}	15.9 ± 1.0	$16.5 \pm 1.1 \pm 0.8$ [11]	$15.2 \pm 1.2 \pm 1.0$ [12]	$13.8^{+5.5}_{-4.6} \pm 1.6$ [10]			15.9 ± 1.0
235	$\eta K_0^*(1430)^0$	11.0 ± 2.2	$11.0 \pm 1.6 \pm 1.5$ [11]					11.0 ± 2.2
236	$\eta K_2^*(1430)^0$	9.6 ± 2.1	$9.6 \pm 1.8 \pm 1.1$ [11]					9.6 ± 2.1
237	ωK^0	5.0 ± 0.6	$5.4 \pm 0.8 \pm 0.3$ [16]	$4.5 \pm 0.4 \pm 0.3$ [17]	$10.0^{+5.4}_{-4.2} \pm 1.4$ [18]			4.8 ± 0.4
238	$a_0(980)^0 K^0 \dagger$	< 7.8	< 7.8	< 7.8				< 7.8
239	$b_1^0 K^0 \dagger$	< 7.8	< 7.8	< 7.8				< 7.8
240	$a_0(980)^- K^+ \dagger$	< 1.9	< 1.9	< 1.9				< 1.9
241	$b_1^- K^+ \dagger$	7.4 ± 1.4	$7.4 \pm 1.0 \pm 1.0$ [37]					7.4 ± 1.4
242	$b_1^0 K^{*0} \dagger$	< 8.0	< 8.0	< 8.0				< 8.0
243	$b_1^- K^{*+} \dagger$	< 5.0	< 5.0	< 5.0				< 5.0
244	$a_0(1450)^- K^+ \dagger$	< 3.1	< 3.1	< 3.1				< 3.1
245	$K_S X^0(\text{Familon}) \dagger$	< 53			< 53	[77]		< 53
246	ωK^{*0}	2.0 ± 0.5	$2.2 \pm 0.6 \pm 0.2$ [19]	$1.8 \pm 0.7^{+0.3}_{-0.2}$ [78]				2.0 ± 0.5
247	ωK^{*0}	18.4 ± 2.5	$18.4^{+1.8}_{-1.7}$ [19]					$18.4^{+1.8}_{-1.7}$
248	$\omega K_0^*(1430)^0$	16.0 ± 3.4	$16.0 \pm 1.6 \pm 3.0$ [19]					16.0 ± 3.4
249	$\omega K_2^*(1430)^0$	10.1 ± 2.3	$10.1 \pm 2.0 \pm 1.1$ [19]					10.1 ± 2.3
250	$\omega K^+ \pi^- (NR)^1$	5.1 ± 1.0		$5.1 \pm 0.7 \pm 0.7$ [78]				5.1 ± 1.0
251	$K^+ \pi^- \pi^0$	37.8 ± 3.2	$38.5 \pm 1.0 \pm 3.9$ [79]	$36.6^{+4.2}_{-4.3} \pm 3.0$ [80]				37.8 ± 3.2
252	$\rho^- K^+$	7.0 ± 0.9	$6.6 \pm 0.5 \pm 0.8$ [79]	$15.1^{+3.4+2.4}_{-3.3-2.6}$ [80]				7.0 ± 0.9
253	$\rho(1450)^- K^+$	2.4 ± 1.2	$2.4 \pm 1.0 \pm 0.6$ [79]					2.4 ± 1.2
254	$\rho(1700)^- K^+$	0.6 ± 0.7	$0.6 \pm 0.6 \pm 0.4$ [79]					0.6 ± 0.7
255	$K^+ \pi^- \pi^0 (NR)$	2.8 ± 0.6	$2.8 \pm 0.5 \pm 0.4$ [79]	< 9.4 [80]				2.8 ± 0.6
256	$(K\pi)^* \pi^-$	34 ± 5	$34.2 \pm 2.4 \pm 4.1$ [79]					34.2 ± 4.8
257	$(K\pi)_0^+ \pi^0$	8.5 ± 1.7	$8.6^{+1.1}_{-1.3}$ [79]					$8.6^{+1.1}_{-1.3}$
258	$K_2^*(1430)^0 \pi^0$	< 4.0	< 4.0					< 4.0
259	$K^*(1680)^0 \pi^0$	< 7.5	< 7.5					< 7.5
260	$K^{*0} \pi^0 \pi^0$	6.1 ± 1.6		$6.1^{+1.6+0.5}_{-1.5-0.6}$ [80]				$6.1^{+1.7}_{-1.6}$
261	$K^0 \pi^+ \pi^-$	65 ± 8	$50.2 \pm 1.5 \pm 1.8$ [82]	$47.5 \pm 2.4 \pm 3.7$ [83]				49.4 ± 1.7
262	$K^0 \pi^+ \pi^- (NR)$	$14.7^{+4.0}_{-2.6}$	$11.1^{+2.5}_{-1.0} \pm 0.9$ [82]	$19.9 \pm 2.5^{+1.7}_{-2.0}$ [83]			$48.8^{+3.2}_{-2.8} \dagger$ [84]	14.7 ± 2.0
263	$\rho^0 K^0$	4.7 ± 0.6	$4.4 \pm 0.7 \pm 0.3$ [82]	$6.1 \pm 1.0^{+1.1}_{-1.2}$ [83]				4.7 ± 0.7
264	$K^{*+} \pi^-$	8.4 ± 0.8	$8.2 \pm 0.9 \pm 3$ [79,82]	$8.4 \pm 1.1^{+1.0}_{-0.9}$ [83]				8.4 ± 0.8
265	$K_0^*(1430)^+ \pi^-$	33 ± 7	$29.9^{+2.3}_{-1.7} \pm 3.6$ [82]	$49.7 \pm 3.8^{+8.2}_{-8.2}$ [83]				$33.5^{+3.9}_{-3.8}$
266	$K_x^+ \pi^- \pi^-$	5.1 ± 1.6		$5.1^{+1.5+0.6}_{-1.5-0.7}$ [80]				$5.1^{+1.6}_{-1.7}$
267	$K^*(1410)^+ \pi^- \dagger$	< 3.8		< 3.8				< 3.8
268	$f_0(980) K^0 \dagger$	7.0 ± 0.9	$6.9 \pm 0.8 \pm 0.6$ [82]	$7.6 \pm 1.7^{+0.9}_{-1.3}$ [83]				7.0 ± 0.9
269	$f_2(1270)^0 K^0$	$2.7^{+1.3}_{-1.2}$	$2.7^{+1.0}_{-0.5} \pm 0.9$ [82]	$< 2.5 \dagger$				$2.7^{+1.3}_{-1.2}$
270	$f_x(1300)^0 K^0$	1.8 ± 0.7	$1.81^{+0.55}_{-0.45} \pm 0.48$ [82]					$1.81^{+0.73}_{-0.66}$

Results for LHCb are relative BF's converted to absolute BF's.

CLEO upper limits that have been greatly superseded are not shown.

\dagger In this product of BF's, all daughter BF's not shown are set to 100%.

\ddagger Obtained from a fit to the ratios of BF's measured by LHCb (Ref. [84]) and to the averages of the BF's in their numerators, as measured by other experiments (RPP 292 and 298).

¹ $0.755 < M(K\pi) < 1.250 \text{ GeV}/c^2$ ² K^{*0} stands for the possible candidates for $K^*(1410), K_0^*(1430), K_2^*(1430)$.

³ Average of BABAR results from $B^0 \rightarrow K^+ \pi^- \pi^0$ [79] and $B^0 \rightarrow K^0 \pi^+ \pi^-$ [82].

Heavy Flavor Averaging group (HFLAV) - August 2017

B^0 Branching Fractions (decays with kaons part 2) ($\times 10^{-6}$) - UL at 90% CL

In PDG2014 [New since PDG2014 \(preliminary\)](#) [New since PDG2014 \(published\)](#)

RPP#	Mode	PDG2014 Avg.	BABAR	Belle	CLEO	CDF	LHCb	Our Avg.
271	$K^{*0}\pi^0$	3.3 ± 0.6	$3.3 \pm 0.5 \pm 0.4$	[79]	[80]			3.3 ± 0.6
272	$K_2^*(1430)^+\pi^-$	< 6	< 16.2	[81]	< 3.5			< 6.3
273	$K^*(1680)^+\pi^-$	< 10	< 25	[81]	< 6.3			< 10.1
275	$\rho^0 K^+\pi^-$	2.8 ± 0.7		[81]	$2.8 \pm 0.5 \pm 0.5^2$			2.8 ± 0.7
276	$f_0(980)K^+\pi^-$	1.4 ± 0.6			$1.4 \pm 0.4 \pm 0.3^2$			1.4 ± 0.3
277	$K^+\pi^-\pi^+\pi^-$	< 2.1			< 2.1			< 2.1
278	$K^{*0}\pi^+\pi^-$	5.5 ± 5	$5.4 \pm 5 \pm 2.9 \pm 4.3$	[86]				5.4 ± 5.2
279	$K^{*0}\rho^0$	3.9 ± 1.3	$5.1 \pm 0.6 \pm 0.6$	[87]	$2.1 \pm 0.8 \pm 0.9$			3.9 ± 0.8
280	$f_0(980)K^{*0}\pi^+$	3.9 ± 1.8	$5.7 \pm 0.6 \pm 0.4$	[87]	$1.4 \pm 0.5 \pm 0.4$			3.9 ± 0.5
281	$K_1(1270)^+\pi^-$	< 30	17 ± 6	[29]				17 ± 6
282	$K_1(1400)^+\pi^-$	< 27	16 ± 8	[29]				16 ± 8
283	$a_1 K^+$	16 ± 4	$16.3 \pm 2.9 \pm 2.3$	[34]				16.3 ± 3.7
284	$K^{*+}\pi^-$	10.3 ± 0.26	$10.3 \pm 2.3 \pm 1.3$	[87]				10.3 ± 2.6
285	$K_0(1430)^+\rho^-$	28 ± 12	$28 \pm 10 \pm 6$	[87]				28 ± 11
287	$K_0^*(1430)^0\rho^0$	27 ± 6	$27 \pm 4 \pm 4$	[87]				27 ± 5
288	$K_2^*(1430)^0 f_0(980)$	2.7 ± 0.9	$2.7 \pm 0.7 \pm 0.6$	[87]				2.7 ± 0.9
289	$K_2^*(1430)^0 f_0(980)$	8.6 ± 2.0	$8.6 \pm 1.7 \pm 1.0$	[87]				8.6 ± 2.0
290	K^+K^-	0.13 ± 0.05	< 0.5	[73]				0.0803 ± 0.0147
291	$K^0\bar{K}^0$	1.21 ± 0.16	$1.08 \pm 0.28 \pm 0.11$	[1]	$0.10 \pm 0.08 \pm 0.04$	[2]	$0.0780 \pm 0.0127 \pm 0.0084$ [89]	1.21 ± 0.16
292	$K^0 K^-\pi^+$	7.3 ± 1.1	$6.4 \pm 1.0 \pm 0.6$	[90]	$1.26 \pm 0.19 \pm 0.05$	[2]	6.07 ± 0.84 ¹	6.18 ± 0.68
293	$K^{*+}\bar{K}^0$	< 1.9	< 1.9	[91]	< 18		< 0.96	< 0.96
294	$K^{*+}K^+$						< 0.4	< 0.4
295	$K^+K^-\pi^0$	2.2 ± 0.6			$2.17 \pm 0.60 \pm 0.24$	[94]		2.17 ± 0.65
296	$K_S K_S \pi^0$	< 0.9	< 0.9	[95]			< 1.0	< 0.9
297	$K_S K_S \eta$	< 2.0	< 2.0	[95]			< 1.0	< 1.0
298	$K^+K^-\bar{K}^0$	26.3 ± 1.5	$26.5 \pm 0.9 \pm 0.8$	[15]				< 2.0
299	ϕK^0	7.3 ± 0.7	$7.1 \pm 0.6 \pm 0.4$	[15]				26.8 ± 1.0
300	$f_0(980)K^0$	7.0 ± 3.5	$7.0 \pm 2.6 \pm 2.4$	[15]				7.3 ± 0.7
301	$f_0(1500)K^0$	13 ± 7	$13.3 \pm 5.8 \pm 3.2$	[15]				7.0 ± 3.0
302	$f_2'(1525)K^0$	0.3 ± 0.5	$0.29 \pm 0.27 \pm 0.36$	[15]				13.3 ± 5.6
303	$f_0(1710)K^0$	4.4 ± 0.9	$4.4 \pm 0.7 \pm 0.5$	[15]				0.29 ± 0.45
304	$K^0 K^+ K^-$ (NR)	33 ± 10	$33 \pm 5 \pm 9$	[15]				4.4 ± 0.9
305	$K_S K_S K_S$	6.2 ± 1.2	$6.19 \pm 0.48 \pm 0.19$	[96]				4.4 ± 0.9
306	$f_0(980)K_S$	2.7 ± 1.8	$2.7 \pm 1.3 \pm 1.3$	[96]				33 ± 10
307	$f_0(1710)K_S$	0.50 ± 0.050	$0.50 \pm 0.24 \pm 0.11$	[96]				6.04 ± 0.50
308	$f_0(2010)K_S$	0.5 ± 0.6	$0.54 \pm 0.21 \pm 0.52$	[96]				2.7 ± 1.8
309	$K_S K_S K_S$ (NR)	13.3 ± 3.1	$13.3 \pm 2.2 \pm 2.2$	[96]				0.50 ± 0.47
310	$K_S K_S K_L$	< 16	< 16.2	[97]				0.50 ± 0.26
311	$K^{*0}K^+K^-$	27.5 ± 2.6	$27.5 \pm 1.3 \pm 2.2$	[86]				0.54 ± 0.56
312	ϕK^{*0}	10.0 ± 0.5	$9.7 \pm 0.5 \pm 0.6$	[98]				13.3 ± 3.1
313	$K^+\pi^-\pi^+K^-$	< 72						< 16.2
314	$K^{*0}\pi^+K^-$	4.5 ± 1.3	$4.6 \pm 1.1 \pm 0.8$	[86]				< 16.2
315	$K^{*0}\bar{K}^{*0}$	0.8 ± 0.5	$1.28 \pm 0.35 \pm 0.11$	[101]				27.5 ± 2.6
316	$K^+\pi^-K^+\pi^-$ (NR)	< 6.0						10.1 ± 0.6
317	$K^{*0}K^+\pi^-$	< 2.2	< 2.2	[86]				< 72.3
318	$K^{*0}K^{*0}$	< 2.0	< 0.41	[101]				< 2.2
319	$K^{*+}K^{*-}$	< 2.0	< 2.0	[102]				< 2.0
320	$K_1^*(1400)^0\phi$	< 5000	< 5000	[36]				< 5000
321	$(K\pi)^0\phi$	4.3 ± 0.4	$4.3 \pm 0.4 \pm 0.4$	[98]				< 5000
322	$(K\pi)^0\phi^4$	< 1.7	< 1.7	[103]				< 2.0
323	$K_0^*(1430)^0\pi^+K^-$	< 31.8						< 5000
324	$K_0^*(1430)^0\bar{K}^{*0}$	< 3.3						4.3 ± 0.4

Results for CDF and LHCb are relative BFs converted to absolute BFs.

CLEO upper limits that have been greatly superseded are not shown.

¹ In this product of BFs, all daughter BFs not shown are set to 100%.

² Obtained from a fit to the ratios of BFs measured by LHCb (Ref. [84]) and to the averages of the BFs therein, as measured by other experiments (excluding the present line).

³ $0.70 < M(K\pi) < 1.20 \text{ GeV}/c^2$.

⁴ $1.60 < M(K\pi) < 2.15 \text{ GeV}/c^2$.

⁵ Result from ARGUS. Cited in the BABAR column to avoid adding a column to the table.

Heavy FLavor Averaging group (HFLAV) - August 2017
 B^0 Branching Fractions (decays with kaons part 3) ($\times 10^{-6}$) - UL at 90% CL
 In PDG2014 [New since PDG2014 \(preliminary\)](#) [New since PDG2014 \(published\)](#)

RPP#	Mode	PDG2014 Avg.	BABAR	Belle	CLEO	CDF	LHCb	Our Avg.
325	$K_0^{*+}(1430)^0 \bar{K}_0^{*+}(1430)^0$	< 8.4		< 8.4 [100]				< 8.4
326	$\phi K_0^{*+}(1430)^0$	3.9 ± 0.8	$3.9 \pm 0.5 \pm 0.6$ [98]	$4.3 \pm 0.4 \pm 0.4$ [99]				4.2 ± 0.5
327	$K_0^{*+}(1430)^0 K^{*+0}$	< 1.7		< 1.7 [100]				< 1.7
328	$K_0^{*+}(1430)^0 K_0^{*+}(1430)^0$	< 4.7		< 4.7 [100]				< 4.7
329	$\phi K^{*+}(1680)^0$	< 3.5	< 3.5 [103]					< 3.5
330	$\phi K_2^{*+}(1780)^0$	< 2.7	< 2.7 [103]					< 2.7
331	$\phi K_4^{*+}(2045)^0$	< 15.3	< 15.3 [103]					< 15.3
332	$\rho^0 K_2^0(1430)^0$	< 1100	< 1100 † [36]					< 1100 †
333	$\phi K_2^{*+}(1430)^0$	6.8 ± 0.9	$7.5 \pm 0.9 \pm 0.5$ [98]	$5.5^{+0.9}_{-0.7} \pm 1.0$ [99]				6.8 ± 0.8
334	$\phi\phi K^0 \dagger$	4.5 ± 0.9	$4.5 \pm 0.8 \pm 0.3$ [54]					4.5 ± 0.9
335	$\eta/\eta' K^0$	< 31	< 31 [55]					< 31

† $M_{\phi\phi} < 2.85 \text{ GeV}/c^2$.

‡ Result from ARGUS. Cited in the BABAR column to avoid adding a column to the table.

Heavy Flavor Averaging group (HFLAV) - August 2017

B^0 Branching Fractions (decays without kaons) ($\times 10^{-6}$) - UL at 90% CL

In PDG2014 **New since PDG2014 (preliminary)** **New since PDG2014 (published)**

RPP#	Mode	PDG2014 Avg.	BABAR	Belle	CLEO	CDF	LHCb	Our Avg.
356	$\pi^+\pi^-$	5.15 ± 0.19	$5.5 \pm 0.4 \pm 0.3$ [73]	$5.04 \pm 0.21 \pm 0.18$ [2]	$4.5^{+1.4+0.5}_{-1.2-0.4}$ [3]	$5.02 \pm 0.33 \pm 0.35^\ddagger$ [104]	$5.08 \pm 0.17 \pm 0.37$ [105]	5.10 ± 0.19
357	$\pi^0\pi^0$	1.91 ± 0.22	$1.83 \pm 0.21 \pm 0.13$ [74]	$1.31 \pm 0.19 \pm 0.18$ [106]	$1.31^{+1.7+0.5}_{-1.5-0.7}$ [107]			1.59 ± 0.18
358	$\eta\pi^0$	< 1.5	< 1.5 [66]	$4.1^{+1.7+0.5}_{-1.5-0.7}$ [107]	< 2.9 [10]			$4.1^{+1.8}_{-1.7}$
359	$\eta\eta$	< 1.0	< 1.0 [5]	$0.76^{+0.27+0.14}_{-0.23-0.16}$ [108]				$0.76^{+0.30}_{-0.28}$
360	$\eta'\pi^0$	1.2 ± 0.6	$0.9 \pm 0.4 \pm 0.1$ [66]	$2.8 \pm 1.0 \pm 0.3$ [6]	$0.0^{+1.8}_{-0.0}$ [10]			1.2 ± 0.4
361	$\eta'\eta'$	< 1.7	< 1.7 [5]	< 6.5 [8]				< 1.7
362	$\eta'\eta$	< 1.2	< 1.2 [66]	< 4.5 [8]				< 1.2
363	$\eta'\rho^0$	< 1.3	< 2.8 [7]	< 1.3 [8]				< 1.3
364	$f_0(980)\eta'$ †	< 0.9	< 0.9 [7]	< 1.3 [8]				< 0.9
365	$\eta\rho^0$	< 1.5	< 1.5 [76]	< 1.9 [12]				< 1.5
366	$f_0(980)\eta'$ †	< 0.4	< 0.4 [76]					< 0.4
367	$\omega\eta'$	$0.94^{+0.40}_{-0.31}$	$0.94^{+0.35 \pm 0.09}_{-0.30 \pm 0.09}$ [5]	< 2.2 [8]				$0.94^{+0.36}_{-0.31}$
368	$\omega\eta'$	$1.0^{+0.5}_{-0.4}$	$1.01^{+0.46 \pm 0.09}_{-0.38}$ [5]					$1.01^{+0.47}_{-0.39}$
369	$\omega\rho^0$	< 1.6	< 1.6 [19]					< 1.6
370	$f_0(980)\omega$ †	< 1.5	< 1.5 [19]					< 1.5
371	$\omega\omega$	1.2 ± 0.4	$1.2 \pm 0.3^{+0.3}_{-0.2}$ [109]					1.2 ± 0.4
372	$\phi\pi^0$	< 0.15	< 0.28 [67]	< 0.15 [68]				< 0.15
373	$\phi\eta$	< 0.5	< 0.5 [5]	< 0.5 [8]				< 0.5
374	$\phi\eta'$	< 0.5	< 1.1 [5]	< 0.5 [8]				< 0.5
375	$\phi\rho^0$	< 0.33	< 0.33 [70]					< 0.33
376	$f_0(980)\phi$ †	< 0.38	< 0.38 [70]					< 0.38
377	$\omega\phi$	< 0.7	< 0.7 [109]					< 0.7
378	$\phi\phi$	< 0.2	< 0.2 [70]				< 0.028 [110]	< 0.2
379	$a_0^-(980)\pi^+\pi^-$ †	< 3.1	< 3.1 [76]	$3.0 \pm 0.5 \pm 0.7$ [112]	$1.6^{+2.0}_{-1.4} \pm 0.8$ [18]			< 3.1
379	$a_0^+(1450)\pi^+\pi^-$	< 2.3	< 2.3 [76]					< 2.3
380	$a_0^+(1450)\pi^+\pi^-$ †	< 2.3	< 2.3 [76]					< 2.3
382	$\rho^0\pi^0$	2.0 ± 0.5	$1.4 \pm 0.6 \pm 0.3$ [111]	$3.0 \pm 0.5 \pm 0.7$ [112]	$1.6^{+2.0}_{-1.4} \pm 0.8$ [18]			2.0 ± 0.5
383	$\rho^+\pi^-$	23.0 ± 2.3	$22.6 \pm 1.8 \pm 2.2$ [113]	$22.6 \pm 1.1 \pm 4.4$ [112]	$27.6^{+5.4}_{-7.4} \pm 4.2$ [18]			23.0 ± 2.3
384	$\pi^+\pi^-\pi^+\pi^-$	< 19.3	< 23.1 [114]	< 11.2 [115]				< 11.2
385	$\rho^0\pi^+\pi^-(NR)$	< 8.8	< 8.8 [114]	< 11.2 [115]				< 8.8
386	$\rho^0\rho^0$	0.73 ± 0.28	$0.92 \pm 0.32 \pm 0.14$ [114]	$1.02 \pm 0.30 \pm 0.15$ [115]			$0.94 \pm 0.17 \pm 0.11^\ddagger$ [116]	0.95 ± 0.16
387	$f_0(980)\pi^+\pi^-(NR)$ †	< 3.8		< 3.0 [115]				< 3.0
388	$f_0(980)\rho^0$ †	< 0.3	< 0.40 [114]	$0.78 \pm 0.22 \pm 0.11$ [115]				0.78 ± 0.25
389	$f_0(980)f_0(980)$ †	< 0.1	< 0.19 [114]	< 0.2 [115]				< 0.19
391	$a_1^-\pi^+$	26 ± 5	$33.2 \pm 3.8 \pm 3.0$ [117]	$22.2 \pm 2.0 \pm 2.8$ [118]				25.9 ± 2.8
392	$a_2^-\pi^+$	< 6.3		< 6.3 [118]				< 6.3
393	$\pi^+\pi^-\pi^0\pi^0$	< 3100	< 3100 † [59]	< 3100 † [59]				< 3100 †
394	$\rho^+\rho^-$	24.2 ± 3.1	$25.5 \pm 2.1^{+3.6}_{-3.9}$ [119]	$22.8 \pm 3.8^{+2.3}_{-2.6}$ [120]				$24.2^{+3.1}_{-3.2}$
395	$a_1(1260)^0\pi^0$	< 1100	< 1100 † [59]	< 1100 † [59]				< 1100 †
396	$\omega\pi^0$	< 0.5	< 0.5 [66]	< 0.5 [66]				< 0.5
397	$\pi^+\pi^+\pi^-\pi^-\pi^0$	< 9000	< 9000 † [59]	< 9000 † [59]				< 9000 †
398	$a_1^-\rho^+$	< 61	< 61 [121]	< 61 [121]				< 61
399	$a_1^-\rho^0$	< 600	< 600 † [59]	< 600 † [59]				< 600 †
400	$b_1^-\pi^+$ †	10.9 ± 1.5	$10.9 \pm 1.2 \pm 0.9$ [37]					10.9 ± 1.5
401	$b_1^0\pi^0$ †	< 1.9	< 1.9 [35]	< 1.9 [35]				< 1.9
402	$b_1^+\rho^+$ †	< 1.4	< 1.4 [38]	< 1.4 [38]				< 1.4
403	$b_1^0\rho^0$ †	< 3.4	< 3.4 [38]	< 3.4 [38]				< 3.4
404	$\pi^+\pi^+\pi^+\pi^-\pi^-\pi^0$	< 3000	< 3000 † [59]	< 3000 † [59]				< 3000 †
405	$a_1^+a_1^-$	11.8 ± 2.6	11.8 ± 2.6 [122]					11.8 ± 2.6
406	$\pi^+\pi^+\pi^+\pi^-\pi^-\pi^0$	< 11000	< 11000 † [59]	< 11000 † [59]			$0.182 \pm 0.048 \pm 0.014$ § [123]	< 11000 †
	$\phi\pi^+\pi^-$							0.182 ± 0.050

Results for CDF and LHCb are relative BFs converted to absolute BFs.

CLEO upper limits that have been greatly superseded are not shown.

† In this product of BFs, all daughter BFs not shown are set to 100%.

‡ Result given as $0.94 \pm 0.17 \pm 0.09 \pm 0.06$ where last error is from $\mathcal{B}(B^0 \rightarrow \phi K^{*0})$.

§ In the mass range $400 < m(\pi^+\pi^-) < 1600$ GeV/ c^2 .

¶ Result from ARGUS. Cited in the BABAR column to avoid adding a column to the table.

RPP#	Mode	PDG2014 Avg.	CDF	LHCb	Our Avg.
273	$\mathcal{B}(B^0 \rightarrow K^+K^-)/\mathcal{B}(B^0 \rightarrow K^+\pi^-)$		$0.012 \pm 0.005 \pm 0.005$ [88]	$0.00398 \pm 0.00065 \pm 0.00042$ [89]	0.00416 ± 0.00099
356	$\mathcal{B}(B^0 \rightarrow \pi^+\pi^-)/\mathcal{B}(B^0 \rightarrow K^+\pi^-)$	0.261 ± 0.010	$0.259 \pm 0.017 \pm 0.016$ [104]	$0.262 \pm 0.009 \pm 0.017$ [105]	0.261 ± 0.015
	$\mathcal{B}(B^0 \rightarrow K^{*\mp}K^\pm)/\mathcal{B}(B^0 \rightarrow K^{*+}\pi^-)$			< 0.05 [93]	< 0.05
	$\mathcal{B}(B^0 \rightarrow K_S^0 K^{*0})/\mathcal{B}(B^0 \rightarrow K_S^0 \pi^+ \pi^-)$ †			< 0.020 [92]	< 0.020

† Numerator includes two distinct decay processes: $\mathcal{B}(B^0 \rightarrow f) + \mathcal{B}(B^0 \rightarrow \bar{f})$.

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