

Table 3. Comparison of antibiotic separation and ESI signal intensity using different buffers.

Buffer solution	Concentration of an analyte									
	1 µg/mL					10 µg/mL				
	c [mM]	pH	tR [min]	Analyte	Peak height (+ESI)	Peak height (-ESI)	Peak height (+ESI)	Peak height (-ESI)	Peak Width [min]	Symm.
AAF 2.8	1	2.8	18.9	OFL	6.8×10^7	6.9×10^3	6.6×10^8	1.8×10^5		
			19.8	*NOR	3.2×10^7		4.0×10^8	6.6×10^4		
			20.3	*CIP	4.0×10^7		3.7×10^8	5.7×10^4		
			20.3	*SMX	2.9×10^7	1.8×10^5	1.5×10^8	2.5×10^6		
			26.1	SDM	6.0×10^7	7.9×10^5	3.9×10^8	5.7×10^6	0.5333	1.3
TEAA 10.0	5	10	12.1	SMX		7.7×10^4		7.6×10^5	0.1867	0.47
			19.6	SDM	2.1×10^5	2.1×10^5	2.1×10^6	2.2×10^6	0.1956	0.57
			20.9	*NOR	4.6×10^5	1.2×10^4	4.5×10^6	1.1×10^5		
			21.2	*CIP	3.6×10^5	1.5×10^4	3.6×10^6	1.4×10^5		
			34.5	OFL	5.9×10^5	7.8×10^4	6.0×10^6	8.0×10^5	0.2356	0.59
HFTB/NH ₄ OH 9.0	5	9.0	4.1	SMX	4.1×10^7	1.2×10^5	2.1×10^7	2.6×10^5	0.2	1.25
			7.5	SDM	1.5×10^7	5.2×10^5	1.4×10^8	2.0×10^6	0.2	1.8
			8.9	NOR	7.6×10^6	1.6×10^4	9.4×10^7	2.1×10^5	0.2111	1.18
			10.3	CIP	1.4×10^7	1.9×10^4	2.0×10^8	3.2×10^5	0.1644	1.16
			16.5	OFL	4.7×10^7	5.8×10^4	5.1×10^8	9.9×10^5	0.1633	1.61
HFIP/TEA 9.0	5	9.0	4.4	SMX		3.8×10^4		3.2×10^5	0.1533	1.34
			8.6	SDM	1.5×10^6	4.5×10^5	5.1×10^6	1.5×10^6	0.1833	1.04
			10.8	NOR	2.8×10^6		1.1×10^7	1.7×10^5	0.2467	1.23
			12	CIP	4.8×10^6		1.4×10^7	2.6×10^5	0.2378	1.12
			18.9	OFL			1.2×10^7	1.9×10^6	0.2244	1.61
CH ₃ COONH ₄ 10.0	5	10.0	7.8	SMX	8.8×10^5	9.5×10^4	1.9×10^7	5.0×10^5	0.3933	1.47
			12.2	*SDM	5.7×10^6	1.5×10^6	1.4×10^8	3.6×10^6	0.1667	1.56
			12.4	*NOR	5.6×10^6	3.1×10^4	5.1×10^7	1.5×10^5	0.1833	1.01
			13.9	CIP	7.6×10^6	3.2×10^4	7.3×10^7	2.0×10^5	0.1622	1.13
			21.2	OFL	2.2×10^7	6.3×10^4	2.3×10^8	5.9×10^5	0.1583	1.52

* Overlapping peaks.

CH ₃ COONH ₄ 9.0	5	9.0	7.8	SMX	2.5 x 10 ⁶	1.8 x 10 ⁵	1.1 x 10 ⁷	5.5 x 10 ⁵	0.2756	1.29
			12.4	SDM	1.8 x 10 ⁷	1.1 x 10 ⁶	6.5 x 10 ⁷	3.6 x 10 ⁶	0.1467	0.77
			14.8	NOR	3.7 x 10 ⁶	8.0 x 10 ³	7.7 x 10 ⁷	2.2 x 10 ⁵	0.1889	0.36
			15.3	CIP	6.3 x 10 ⁶	9.0 x 10 ³	6.0 x 10 ⁷	2.6 x 10 ⁵	0.1778	0.45
			22.8	OFL	2.5 x 10 ⁷	2.8 x 10 ⁴	2.8 x 10 ⁸	1.0 x 10 ⁶	0.1822	0.55
1-MePip 9.85	5	9.85	11.3	SMX		4.7 x 10 ⁴		3.8 x 10 ⁵	0.1844	0.66
			16.2	SDM		3.2 x 10 ⁵	5.4 x 10 ⁶	2.3 x 10 ⁶	0.1667	0.52
			17.0	*NOR			9.2 x 10 ⁴	6.5 x 10 ⁴	0.2333	0.28
			17.2	*CIP			4.3 x 10 ⁶	2.7 x 10 ⁶		
			23.5	OFL			4.8 x 10 ⁶	5.9 x 10 ⁵	0.1467	0.53
HFTB/NH ₄ OH 10.0	5	10.0	5.6	SMX	6.7 x 10 ⁴	1.4 x 10 ³	2.2 x 10 ⁵	3.2 x 10 ⁴	0.305	-
			9.8	*SDM	1.9 x 10 ⁵	1.9 x 10 ⁴	1.0 x 10 ⁶	1.2 x 10 ⁵	0.1781	1.63
			10.3	*NOR	1.7 x 10 ⁵	4.1 x 10 ³	1.3 x 10 ⁶	3.7 x 10 ⁴	0.3267	1.03
			11.6	CIP	2.5 x 10 ⁵	6.3 x 10 ³	1.1 x 10 ⁶	6.4 x 10 ⁴	0.34	1.16
			18	OFL	7.7 x 10 ⁵	2.9 x 10 ⁴	8.5 x 10 ⁶	1.9 x 10 ⁵	0.3133	1.53
HFIP/NH ₄ OH 10.0	5	10.0	5.2	SMX	6.9 x 10 ⁴	2.0 x 10 ³	2.8 x 10 ⁵	3.1 x 10 ⁴	0.2633	-
			9	SDM	3.7 x 10 ⁵	1.6 x 10 ⁴	1.4 x 10 ⁶	9.4 x 10 ⁴	0.2717	1.63
			10.1	NOR	3.3 x 10 ⁵	3.9 x 10 ³	1.7 x 10 ⁶	2.4 x 10 ⁴	0.4233	1.04
			11.3	CIP	5.4 x 10 ⁵	5.5 x 10 ³	3.9 x 10 ⁶	3.8 x 10 ⁴	0.3	1.17
			18.4	OFL	1.6 x 10 ⁶	1.4 x 10 ⁴	1.1 x 10 ⁷	1.4 x 10 ⁵	0.4167	1.62
HFIP/NH ₄ OH 9.0	5	9.0	4.5	SMX	4.4 x 10 ⁶	1.4 x 10 ⁵	3.4 x 10 ⁷	5.6 x 10 ⁵	0.2044	1.01
			8.2	SDM	1.8 x 10 ⁷	1.2 x 10 ⁶	1.6 x 10 ⁸	3.8 x 10 ⁶	0.2067	0.8
			9.9	NOR	1.0 x 10 ⁷	3.3 x 10 ⁴	1.1 x 10 ⁸	5.5 x 10 ⁵	0.2156	0.4
			11.1	CIP	1.9 x 10 ⁷	5.7 x 10 ⁴	2.0 x 10 ⁸	6.1 x 10 ⁵	0.1822	0.46
			18.6	OFL	3.9 x 10 ⁷	1.1 x 10 ⁵	4.3 x 10 ⁸	4.1 x 10 ⁶	0.1867	0.57

* Overlapping peaks.

HFIP/NH ₄ OH 9.0	1	9.0	3.7	SMX	2.3 x 10 ⁵	1.0 x 10 ⁴	6.5 x 10 ⁵	9.1 x 10 ⁴	0.14	-
			6	SDM	2.5 x 10 ⁵	3.7 x 10 ⁴	1.7 x 10 ⁶	1.6 x 10 ⁵	0.3444	1.5
			10	*NOR	1.3 x 10 ⁵	2.1 x 10 ³	8.2 x 10 ⁵	3.5 x 10 ⁴	0.73	1.44
			10.5	*CIP	1.4 x 10 ⁵	3.5 x 10 ³	1.4 x 10 ⁶	5.5 x 10 ⁴	0.5133	1.11
			17.4	OFL	4.0 x 10 ⁵	1.8 x 10 ⁴	8.4 x 10 ⁶	1.8 x 10 ⁵	0.68	1.66
HFIP/NH ₄ OH 9.0	10	9.0	4.6	SMX	9.8 x 10 ⁵	2.7 x 10 ³	3.4 x 10 ⁵	4.9 x 10 ⁴	0.2567	-
			8.2	SDM	2.7 x 10 ⁵	1.7 x 10 ⁴	1.6 x 10 ⁶	2.0 x 10 ⁵	0.33	1.83
			10.1	NOR	2.5 x 10 ⁵	3.2 x 10 ³	1.5 x 10 ⁶	2.8 x 10 ⁴	0.64	1.19
			11.6	CIP	3.1 x 10 ⁵	5.5 x 10 ³	3.1 x 10 ⁶	4.8 x 10 ⁴	0.5067	1.16
			19.3	OFL	1.9 x 10 ⁶	3.2 x 10 ⁴	1.8 x 10 ⁷	1.2 x 10 ⁵	0.4867	1.67

* Overlapping peaks.