Supplementary Materials: A Comparative Study of Enantioseparations of N$^{\alpha}$-Fmoc Proteinogenic Amino Acids on *Quinine*-Based Zwitterionic and Anion Exchanger-Type Chiral Stationary Phases under Hydro-Organic Liquid and Subcritical Fluid Chromatographic Conditions

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Table S1. Temperature dependence of retention factor of first eluting enantiomer (k_1), separation factor (α) and resolution (R_S) of *N*-Fmoc-protected protein amino acids on ZWIX(+)™ and QN-AX™ under liquid chromatographic conditions.

Compound	Column	Eluent	k_1, α, R_S	Temperature (°C)				
				5	10	20	30	40
Fmoc-Asp(O*t*Bu)-OH	ZWIX(+)™	**k**	k_1	0.46	0.45	0.44	0.41	0.37
			α	1.50	1.40	1.32	1.22	1.14
			R_S	1.30	1.04	1.04	1.08	0.91
	QN-AX™	**w**	k_1	3.27	2.67	2.57	2.36	2.16
			α	2.15	2.03	1.89	1.76	1.63
			R_S	11.50	11.33	10.88	10.39	9.25
Fmoc-Lys(Boc)-OH	ZWIX(+)™	**k**	k_1	0.30	0.30	0.30	0.29	0.26
			α	1.37	1.33	1.27	1.21	1.15
			R_S	1.03	0.93	0.94	0.65	0.76
	QN-AX™	**w**	k_1	1.85	1.69	1.48	1.35	1.25
			α	1.99	1.95	1.86	1.76	1.66
			R_S	10.11	10.95	10.53	7.29	7.91
Fmoc-Leu-OH	ZWIX(+)™	**k**	k_1	0.30	0.30	0.30	0.29	0.26
			α	1.47	1.43	1.38	1.33	1.27
			R_S	0.57	0.53	0.27	0.44	0.20
	QN-AX™	**w**	k_1	2.04	1.85	1.63	1.55	1.41
			α	2.06	1.98	1.88	1.77	1.68
			R_S	9.33	9.25	10.00	7.62	7.57
Fmoc-Phe-OH	ZWIX(+)™	**k**	k_1	0.61	0.59	0.55	0.53	0.49
			α	2.02	1.90	1.73	1.55	1.43
			R_S	3.15	3.06	2.62	1.75	2.05
	QN-AX™	**w**	k_1	5.03	3.54	3.44	3.20	2.88
			α	1.75	1.72	1.60	1.53	1.45
			R_S	8.76	9.29	8.85	8.16	7.33
Fmoc-Tyr(*t*Bu)-OH	ZWIX(+)™	**k**	k_1	0.77	0.74	0.66	0.59	0.57
			α	1.47	1.38	1.26	1.12	1.02
			R_S	1.49	1.21	1.06	0.20	0.20
	QN-AX™	**w**	k_1	5.33	4.21	4.06	3.68	3.23
			α	1.27	1.25	1.20	1.16	1.12
			R_S	3.87	3.58	3.31	2.75	2.18

Chromatographic conditions: column, ZWIX(+)™ and QN-AX™; mobile phase, **k**, H_2O/MeOH (1/99 *v*/*v*) containing 3,75 mM TEA and 7,5 mM FA, **w**, MeOH/MeCN (75/25 *v*/*v*) containing 30 mM TEA and 60 mM FA; flow rate, 0.6 mL min^{-1}; detection, 262 nm.

Table S2. Effect of temperature on chromatographic parameter k_1, α, and R_S of *N*-Fmoc-protected amino acids on QN-AX™ column under SFC conditions.

Compound	k_1, α, R_S	Temperature (°C)			
		20	**30**	**40**	**50**
Fmoc-Asp-(O*t*Bu)-OH	k_1	5.83	5.41	5.06	4.68
	α	1.72	1.67	1.59	1.50
	R_S	8.61	8.59	8.03	7.36
Fmoc-Lys(Boc)-OH	k_1	5.65	5.35	5.06	4.78
	α	1.59	1.57	1.51	1.49
	R_S	7.17	7.19	6.83	6.31
Fmoc-Leu-OH	k_1	-	4.94	4.57	4.14
	α	-	1.73	1.62	1.53
	R_S	-	9.21	8.76	8.02
Fmoc-Phe-OH	k_1	12.07	11.12	10.16	9.03
	α	1.39	1.37	1.33	1.29
	R_S	5.99	5.76	5.58	5.19
Fmoc-Tyr(*t*Bu)-OH	k_1	12.21	12.00	10.99	9.17
	α	2.00	1.96	1.89	1.83
	R_S	10.98	11.25	11.88	12.32

Chromatographic conditions: Column, Chiralpak QN-AX™; mobile phase, CO_2/MeOH (60/40 *v*/*v*) containing 30 mM TEA and 60 mM FA; flow rate, 2 mL min^{-1}; detection, 264 nm; T_{col}, 20–40 °C; back pressure, 150 bar