Supporting Information

Preparation and evaluation of polydopamine-modified capillary silica monolith for capillary electrochromatography

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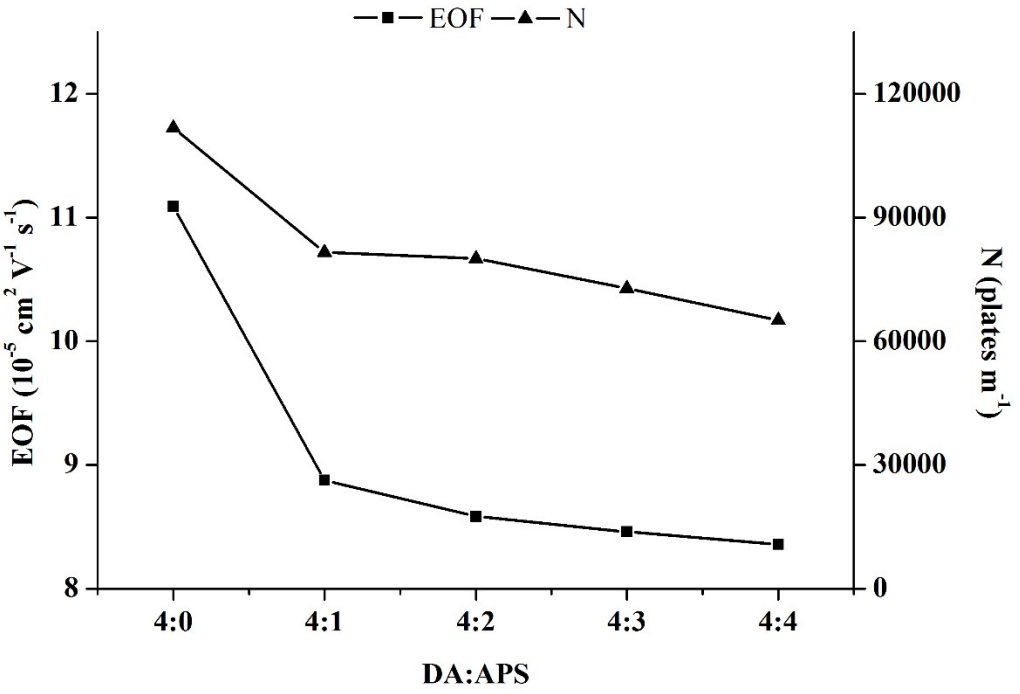

Fig.S1 Effect of the ratios of oxidant on EOF and column efficiency of the PDA-CSM. EOF marker：DMF. Conditions: running buffer, 10 mmol L^{-1} phosphoric acid buffer (pH 6.0); injection, 2 kV, 3s; applied voltage, 10 kV; temperature, 25◦C; detection, 210 nm; PDA-coated capillary silica monolith, 16.5 cm; total length, 33 cm.

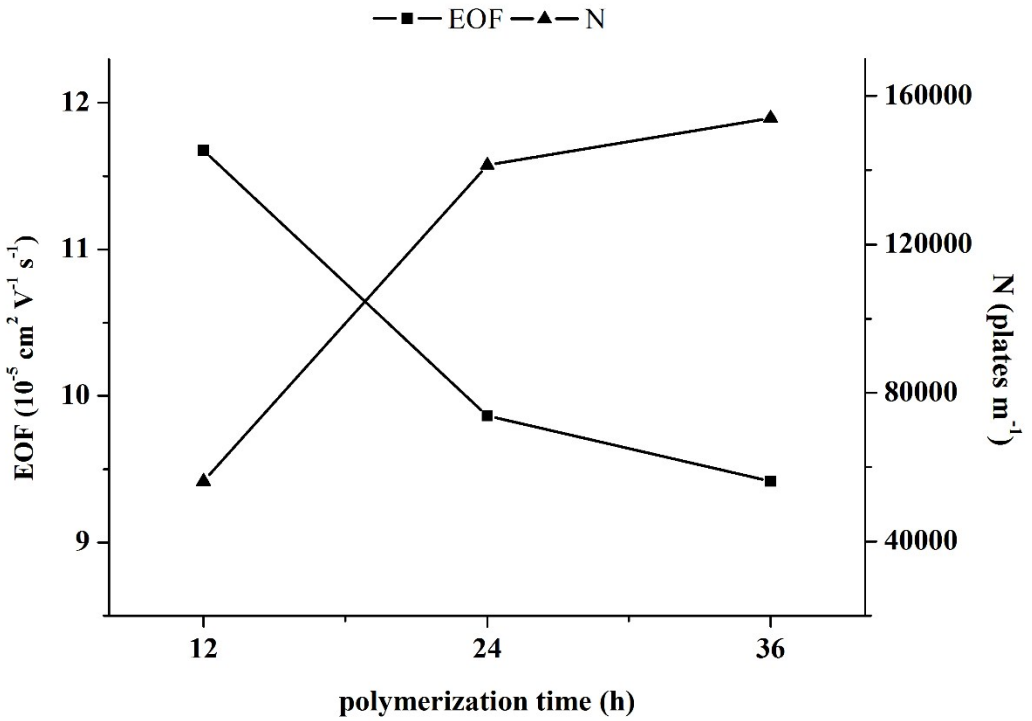

Fig.S2 Effect of the polymerization time on EOF and column efficiency of the PDA-CSM. The conditions are the same as in Figure S1.

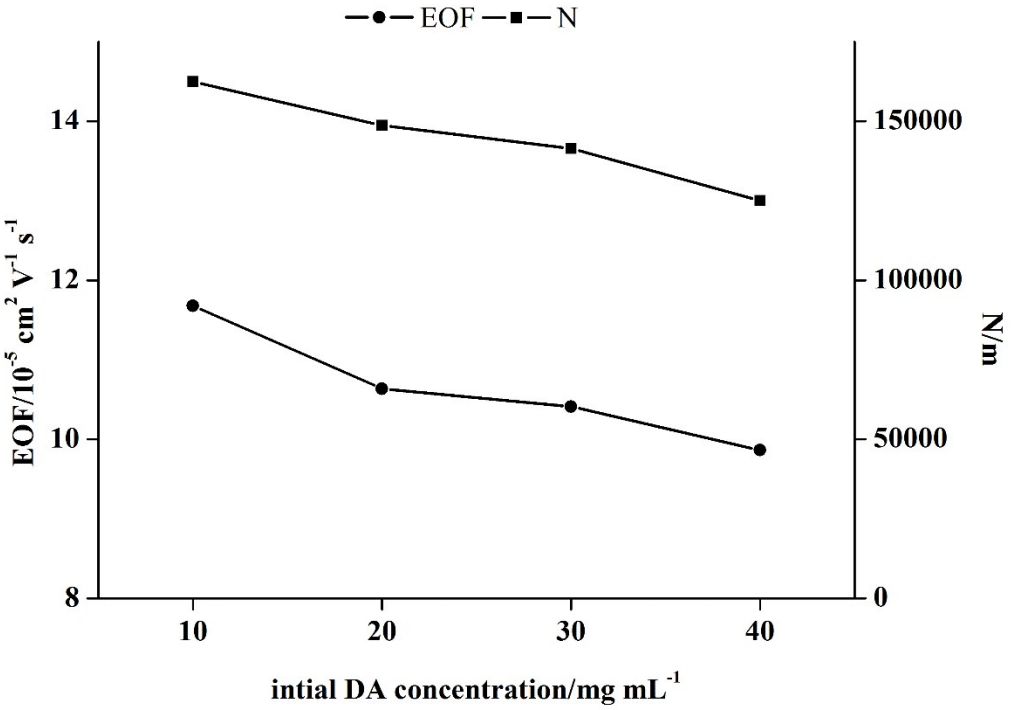

Fig.S3 Effect of initial DA concentration on EOF and column efficiency of the PDA-CSM. The conditions are the same as in Figure S1.

Table S1. Separation of anilines on PDA-CSM.

Analytes	t_R/min	N/m	R_S
o-phenylenediamine	6.759	152 867	
4-chloro-1,2-phenylenediamine	7.319	117 842	2.97
p-chloroaniline	7.748	75 267	1.76

[a] Conditions: capillary column, 33 cm (effective length, 16.5 cm); buffer, 10% acetonitrile, 10 mmol L−1 phosphate buffer (pH 7.0); applied voltage, 10 kV; injection, 2 kV, 4 s; detection wavelength, 210 nm.

Table S2. Comparison of running stability on GO-CSM and GO-PDA-CSM.

	Analytes	GO-CSM (n=3)	GO-PDA-CSM (n=3)
Retention time (RSD %)	benzene	14	1.5
	toluene	14	1.7
	ethylbenzene	15	1.9
	n-propylbenzene	15	2.5
	n-butylbenzene	19	4.9
Resolution (RSD %)	benzene/toluene	16	1.3
	Toluene/ethylbenzene	23	1.6
	ethylbenzene/n-propylbenzene	14	4.3
	n-propylbenzene/n-butylbenzene	31	3.3

[a] Conditions: capillary column, 33 cm (effective length, 16.5 cm); buffer, 25% acetonitrile-10 mmol L^{-1} phosphate buffer (pH 7.0); applied voltage, 10 kV; injection, 1 kV, 2 s; detection wavelength, 210 nm.