

SUPPLEMENTARY INFORMATION

Mixture design of electrolyte system for the simultaneous separation of Cl^- , SO_4^{2-} , NO_3^- , NO_2^- and HCO_3^- in shrimp farming water by CZE-UV

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Supplementary Information: Figures S1 and Table S1 and S2.

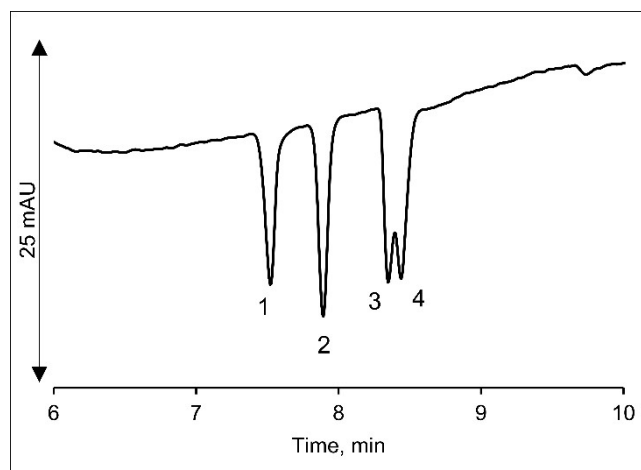


Figure S1: Electropherogram of the solution containing 250 mg L⁻¹ of Cl^- , SO_4^{2-} , NO_3^- and NO_2^- . BGE: 60 mmol L⁻¹ CrO_4^{2-} and 2.5 mmol L⁻¹ CTAB (pH 8.40), cartridge temperature: 25°C, voltage: -5 kV, detection wavelength: 254 nm, hydrodynamic injection: 25 mbar for 5 s and TSP fused silica capillary (effective length of 40 cm). 1: Cl^- , 2: NO_2^- , 3: NO_3^- , 4: SO_4^{2-} .

Table S1: RSD values for repeatability test.

Design point	Migration time (%)			Peak area (%)		
	A	C/D	H	A	C/D	H
Cl^-	1.7	0.3	0.5	1.5	8.8	1.6
SO_4^{2-}	1.8	0.3	0.5	5.0	9.1	1.9
NO_3^-	1.9	0.3	0.5	5.4	7.5	2.1
NO_2^-	1.9	0.3	0.5	2.2	6.6	3.8

Table S2: Measured viscosity (η) for BGEs used in mixture design.

Design point	η^* (kg m⁻¹ s⁻¹)
A/B	0.000873
C/D	0.000950
E/F	0.000894
G/H	0.000901
I/J	0.000881
K/L	0.000834

* Measurements performed in triplicate.