Fieldable flow injection analysis system with 1,1’-oxalyldiimidazole chemiluminescence detection capable of quantifying acetylcholine

(Electronic Supplementary Information)

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Fig. S-1 Effect of ChOx. Condition: [ACh] = 3.0 µM, [AChE] = 1.0 U/ml, [HRP] = 1.0 U/ml, [Amplex Red] = 1.25 µM, [TCPO] = 15.0 µM, [4MImH] = 75.0 µM, [H2O2] = 0.1 M, Incubation time: 20 minutes
Fig. S-2 Effect of HRP. Condition: [ACh] = 3.0 µM, [AChE] = 1.0 U/ml, [ChOx] = 0.5 U/ml, [Amplex Red] = 1.25 µM, [TCPO] = 15.0 µM, [4MImH] = 75.0 µM, [H₂O₂] = 0.1 M, Incubation time: 20 minutes
Supplementary Material (ESI) for Analytical Methods

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Fig. S-3 CL emission of resorufin
Fig. S-4 Linear calibration curve for the quantification of ACh using FIA system with ODI CL detection. Condition: [AChE] = 1.0 U/ml, [ChOx] = 0.5 U/ml [HRP] = 0.04 U/ml, [Amplex Red] = 1.00 µM, [TCPO] = 10.0 µM, [4MImH] = 50.0 µM, [H₂O₂] = 0.1 M, Incubation time: 15 minutes