Supporting Information

Multivariate Curve Resolution for Signal Isolation from Fast-Scan Cyclic Voltammetric Data

Justin A. Johnson[†], Josh H. Gray[†], Nathan T. Rodeberg, and R. Mark Wightman^{*,†,‡}

[†]Department of Chemistry and [‡]Neuroscience Center and Neurobiology Curriculum, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27599-3290, United States

*Corresponding Author: Phone: 919-962-1472. E-mail: rmw@unc.edu

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Table S-1. Rank estimated by Malinowski's F-Test, orthogonal projection approach, and the evolving factor analysis approach for different simulated time separations of 8-second dopamine and pH boluses

| | Analyte Onset Separation (sec) | | | | | | | | | | | | | |
|------------------------------|--------------------------------|---|---|---|---|---|---|---|---|---|----|---|----|---|
| | 0 | | 2 | | 4 | | 6 | | 8 | | 10 | | 12 | |
| | Ι | Т | Ι | Т | Ι | Т | Ι | Т | Ι | Т | Ι | Т | Ι | Т |
| Malinowski's F-Test (99%) | 3 | 8 | 4 | 8 | 4 | 8 | 4 | 8 | 5 | 8 | 6 | 8 | 6 | 8 |
| OPA | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| EFA | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

*I = analysis of data window containing injections; T = analysis of entire 50-second data window

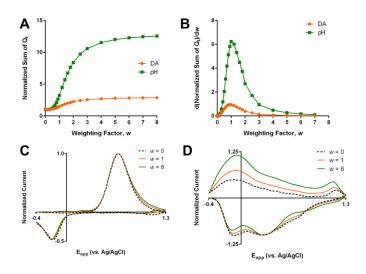


Figure S-1. Effect of the weighting parameter w on the MCR-ALS fits to isolated injections of dopamine and pH (A-B) Sum of the squares of the residual (A, normalized to value for w = 0) and its derivative plot (B) as a function of the weighting parameter w for the dopamine (orange) and pH (green) data. (C-D) MCR-ALS spectral estimates for dopamine (C) and pH (D) data at different values of w.