Supporting Information

3-D printed injection system for capillary electrophoresis

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Table S1. Typical conditions for reconditioning (flushing), electrokinetic injection, and separation using a 50 μm i.d., 30 cm capillary.

Table S2. Typical conditions for reconditioning (flushing), pressure injection, and separation using a 50 μm i.d., 30 cm capillary.

Figure S1. Log-Log calibration curve of peak amplitude using pressure injection.

STL and STEP files:

top-3-D-surface-geometry.stl,

bottom-3-D-surface-geometry.stl,

top-3-D-step-model.stp,

bottom-3-D-step-model.stp.

Matlab m-files:

DeadTimeCorrection.m – This m-file corrects for photodiode deadtime, combines data from a primary and attenuated photo detectors, and applies matched smoothing to the Gaussian shaped peaks.

GausFilterMatrix.m – This m-file convolutes each column of a data matrix with a Gaussian function of specified width.

Table S1. Typical conditions for reconditioning (flushing), electrokinetic injection, and separation using a 50 μm i.d., 30 cm capillary.

	Reagent	Time (s)	Pressure (psi)	Voltage (kV)
Re-condition (flush)	1 M NaOH	120	7	0
	ddH$_2$O	120	7	0
	10 mM Sodium tetraborate	120	7	0
Injection	Fluorescein sample	1	0	1
Separation	10 mM Sodium tetraborate	480*	0	8

*Length of run is sample-dependent

Table S2. Typical conditions for reconditioning (flushing), pressure injection, and separation using a 50 µm i.d., 30 cm capillary.

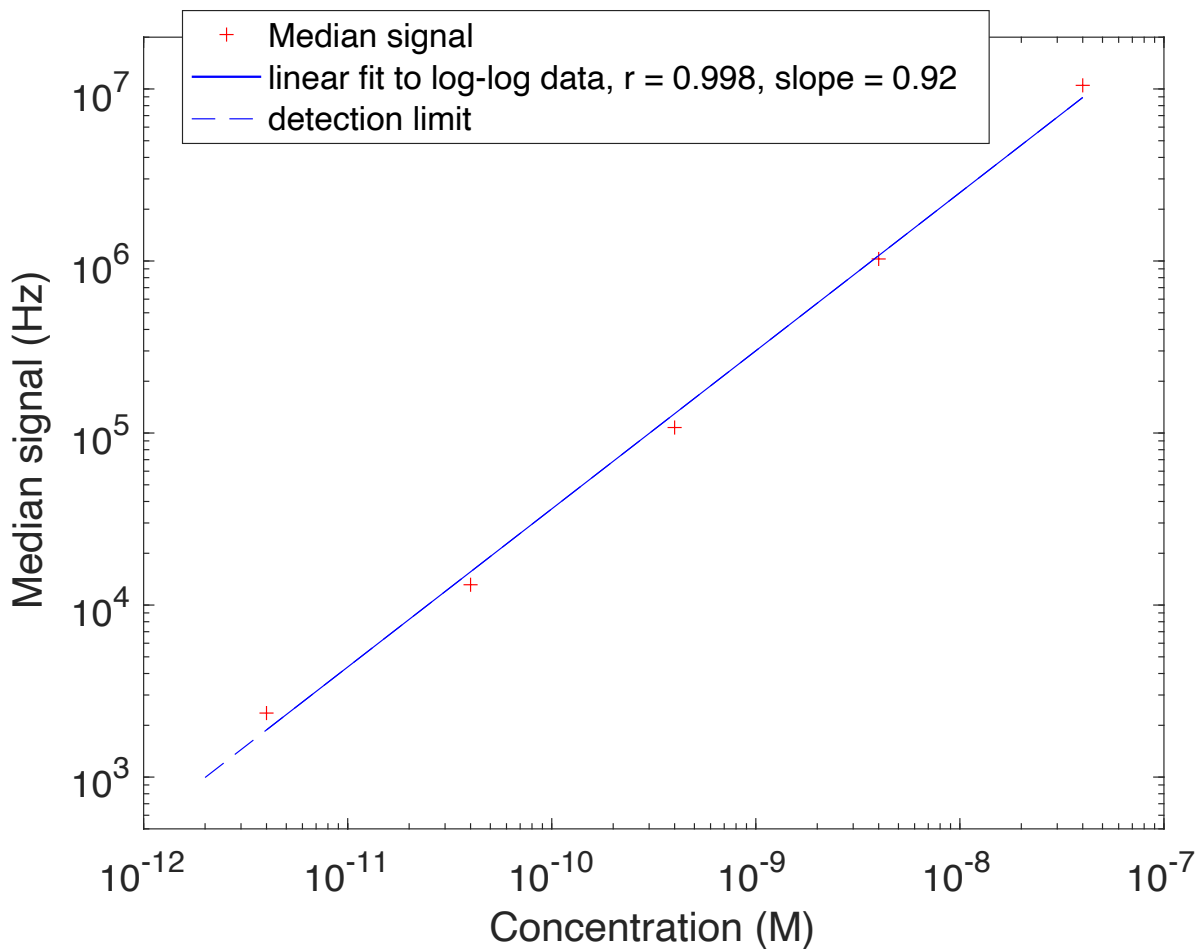|	Reagent	Time (s)	Pressure (psi)	Voltage (kV)
Re-condition (flush)	1 M NaOH	120	7	0
	ddH$_2$O	120	7	0
	10 mM Sodium tetraborate	120	7	0
Injection	Fluorescein sample	0.2	7	0
Separation	10 mM Sodium tetraborate	480[*]	0	8

[*]*Length of run is sample-dependent*

Figure S1. Log-Log calibration curve of peak amplitude using pressure injection of fluorescein samples ranging in concentration from 4 pM to 40 nM. Median detection limit is 2 pM. The calibration curve is extrapolated to the detection limit with a dashed line.