



Sup. Fig. 1 Experimental determination of gradient degradation over time. Represented are the profiles of a gradient taken every other day. The device was kept in a cell incubator at 37 C. Panel A shows raw fluorescence intensity values while panel B shows normalized values.

**A**

Step	T <sub>step</sub> (s)	T <sub>cumul</sub> (s)	P1 (μl/min)	P2 (μl/min)	P3 (μl/min)
1	10	10	90	20	40
2	10	20	80	30	40
3	20	40	70	40	40
4	40	80	60	50	40
5	80	160	50	60	40
6	160	320	40	70	40
7	320	640	30	80	40
8	640	1280	20	90	40
9	1280	2900	10	100	40

**B**

Step	T <sub>step</sub> (s)	T <sub>cumul</sub> (s)	P1 (μl/min)	P2 (μl/min)	P3 (μl/min)
1	8	8	50	60	40
2	5	13	40	70	40
3	6	19	30	80	40
4	8	27	20	90	40
5	10	37	10	100	40

**C**

Step	T <sub>step</sub> (s)	T <sub>cumul</sub> (s)	P1 (μl/min)	P2 (μl/min)	P3 (μl/min)
1	6	6	50	60	40
2	3	9	40	70	40
3	5	14	30	80	40
4	6	20	20	90	40
5	12	32	10	100	40

Sup. Tables. The step timing and the pump flow rates (P1-P3) used in a step-function flow protocols. (A) Parameters to deposit the gradient pattern for determination of protein deposition kinetics. Time intervals indicate time at the listed flow rate (T<sub>step</sub>) for a particular interval, and the cumulative dwell time (T<sub>cumul</sub>) over a region. For example, for step number 3, the time spent at the listed flow rate is 20 s. By the end of the third interval, when the third step is complete, the cumulative time for that step is 40 s. (B) Parameters used for deposition of a linear gradient. (C) Parameters for an exponential gradient.