Supplementary Material (ESI) for Lab on a Chip

Whole column fluorescence imaging on a microchip by using a programmed organic light emitting diode array as a spatial-scanning light source and a single photomultiplier tube as detector

Electronic Supplementary Information

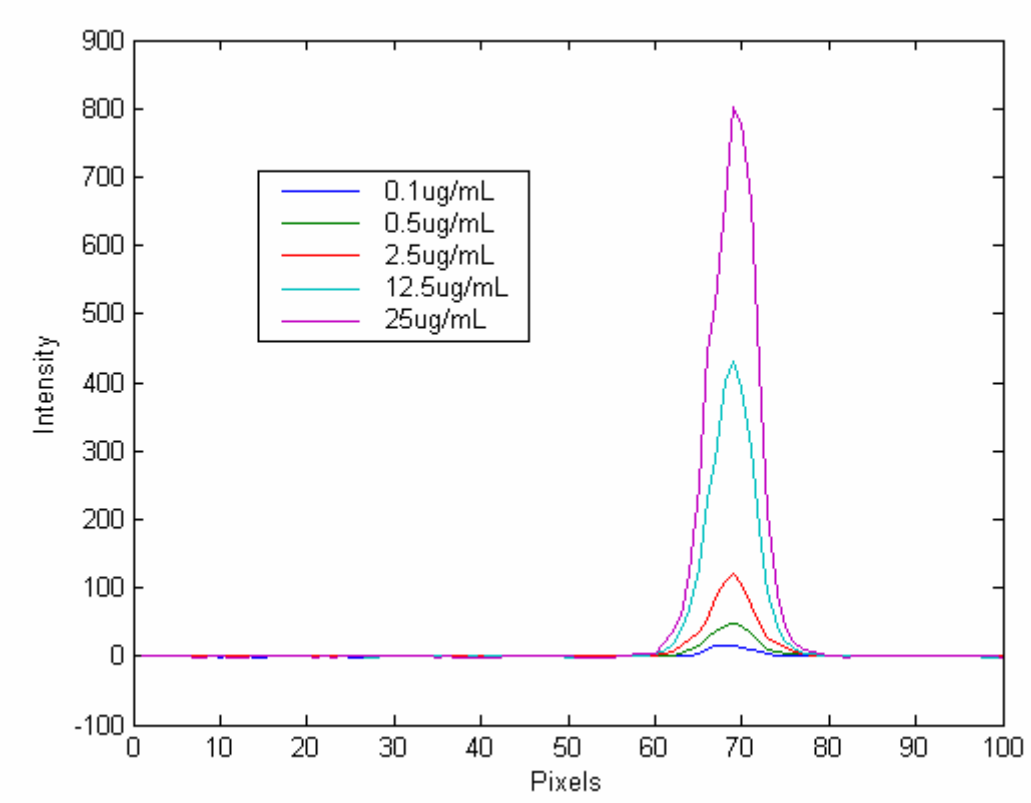

Fig. S1. Electropherograms of increased concentration from 0.1 to 25 μg/mL R-phycoerythrin focused in a 5.4-cm-long microchannel. Other conditions are the same as in Fig. 3.

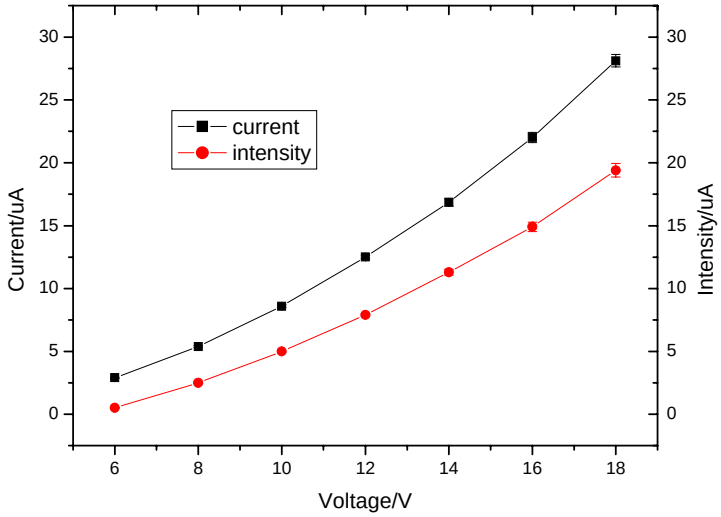

Fig. S2 Driving current and intensity of the scanning OLED. The AM-OLED was set to scan repetitively, driving voltage from 6V to 18V were used and the driving current and intensity are shown. As shown in Fig.5 of ref. 28, the OLED we used could not work at a voltage above 12 Vdc.

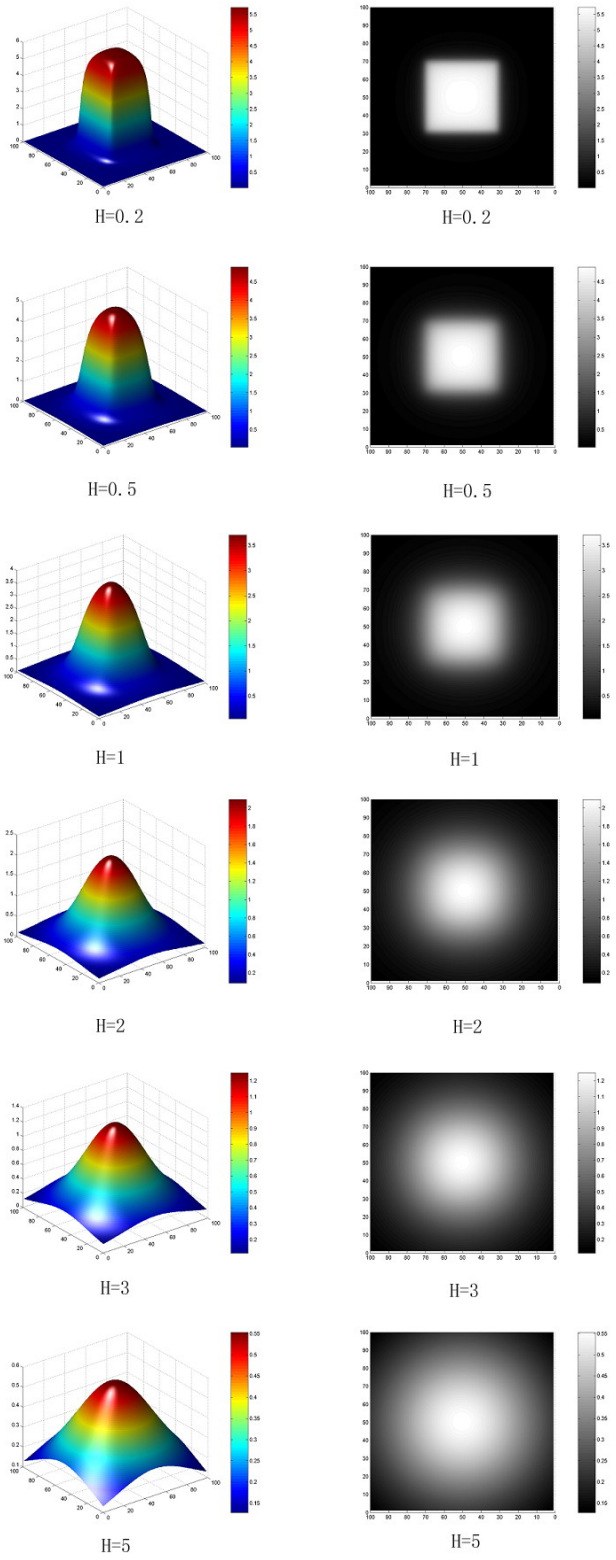

Fig. S3. Simulation result of illuminance of one OLED pixel calculated from equation (3) by Matlib6.5, coloured by the normalized-velocity values. In the simulation the parameters were set as a=b=2. Simulation results of the illuminance at different distance H are shown. The simulation is an illustration of the light spot on the microchannel illuminated by a single OLED pixel. The parameter H refers to the distance between the light source and the microchannel.