Supporting Information for

Microfluidic On-chip Valve and Pump for Applications in Immunoassays

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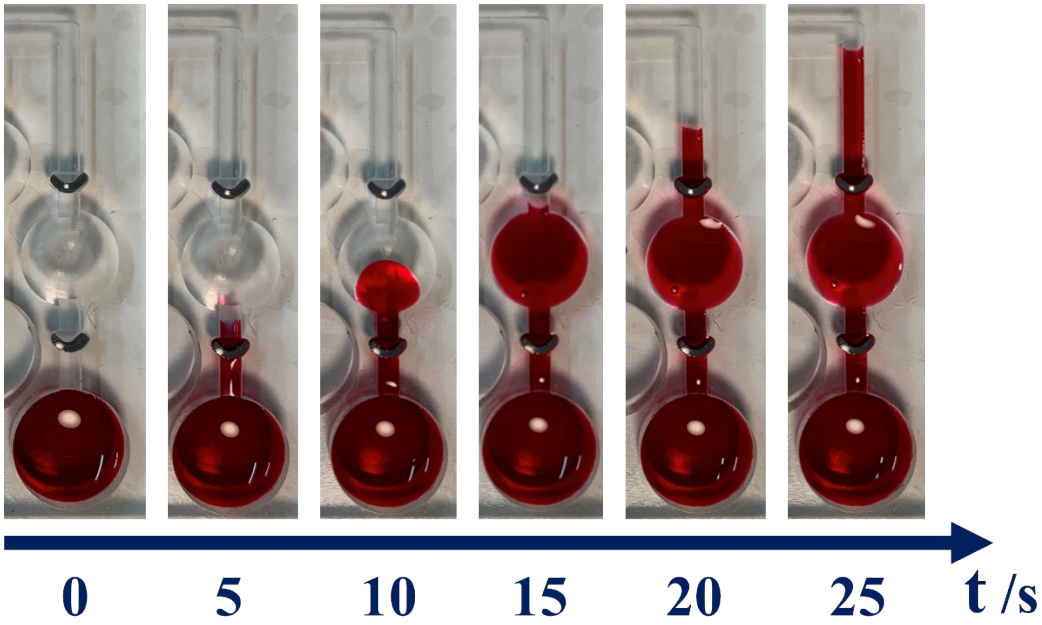

Figure S1 The photos of the unidirectional flow

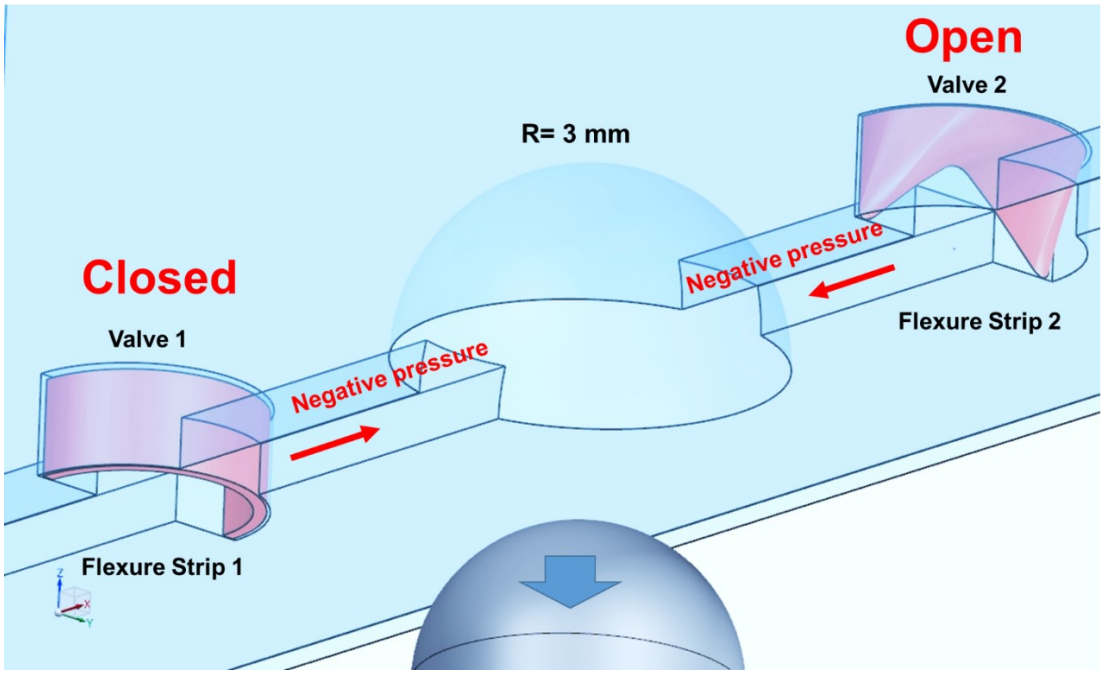

Figure S2 The view from the bottom when the pole moves down

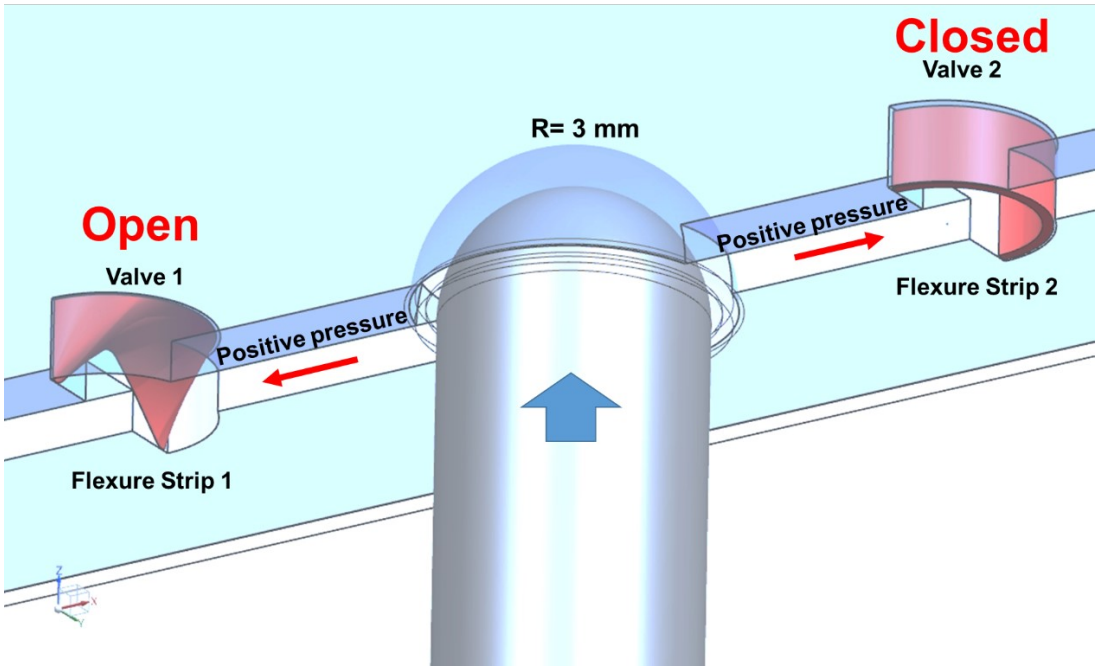

Figure S3 The view from the bottom when the pole moves up

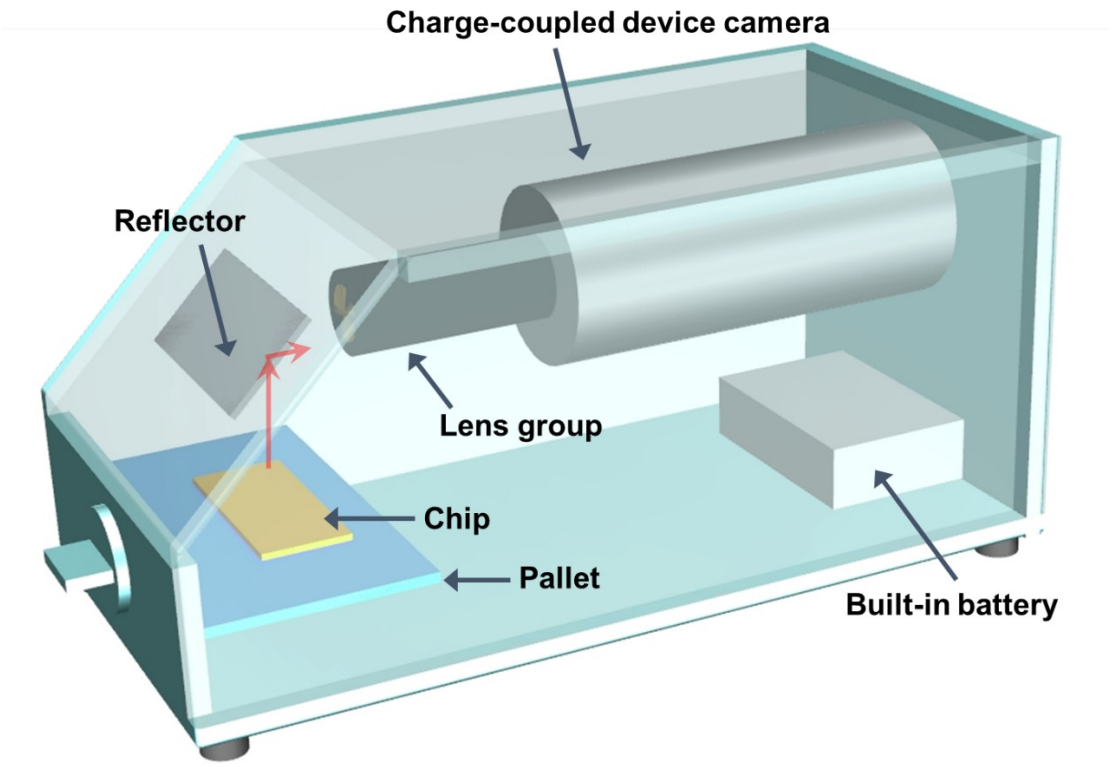

Figure S4 The schematic of the portable instrument for chemiluminiscence imaging

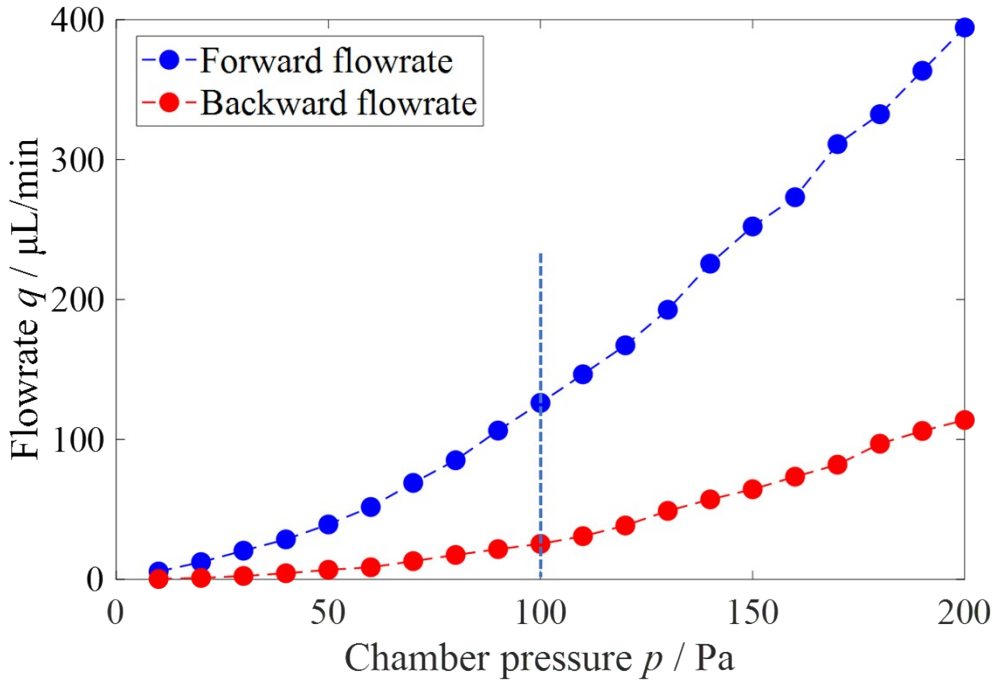

Figure S5 The curve of pressure versus forward flowrate and backward flowrate