Electronic Supplementary Material (ESI) for Analyst.

Supporting Information

Handheld Continuous-flow Real-time Fluorescence qPCR System with PVC Microreactor

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I. Thermal Image of Microreactor

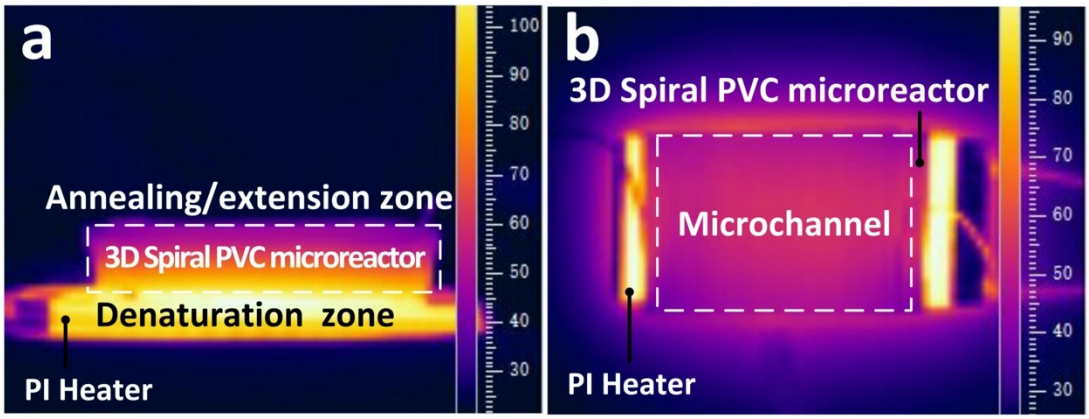

Fig S1. The IR camera images of the front and the top views of the microreactor corresponded to the denaturation and annealing/extension temperature which were measured to be 95 ± 2 °C and 56 ± 0.2 °C, respectively. The annealing/extension and denaturation time is 35s and 10s, respectively. Moreover, the annealing/extension temperature can be easily controlled by changing the thickness of the PDMS block, which makes the microreactor a general and flexible platform for performing a flow-through PCR for various samples.

II. Experimental Methods of Gel Electrophoresis

After the PCR reaction, agarose powder (V900510; Sigma-Aldrich, Shanghai, China), DL2000 DNA marker (50 × 250 µL, Peking Jialan Biotechnology Co., Ltd., Beijing, China), 0.5 × TBE buffer (PH1755, Phygene, Fuzhou, China), and Nucleic Acid GelStain (KeyGEN BioTECH, Nanjing, China) were applied to analyze the amplification result.