

Electronic Supplementary Information (ESI)

For

Rapid and low-cost visualized amplicon detection using magnetic microbeads for nucleic acid amplification tests

Michihiko Nakano, * Masafumi Inaba and Junya Suehiro

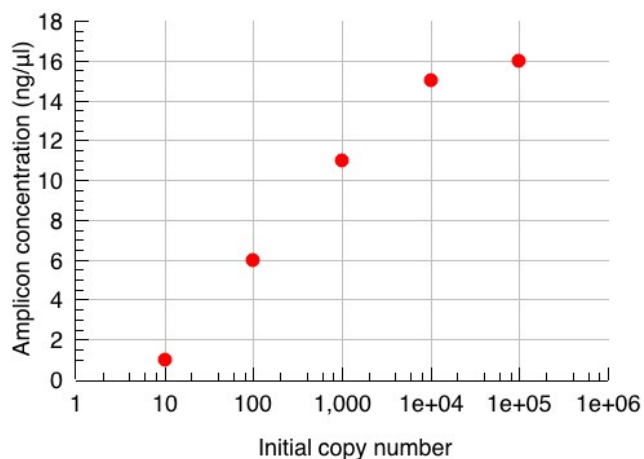
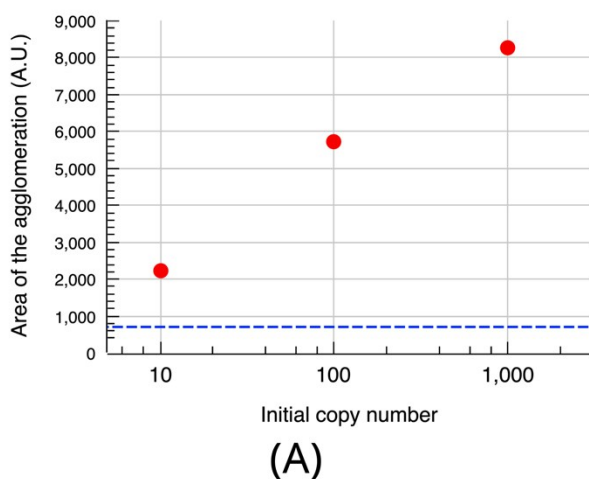


Fig. S1. Plot of amplicon concentration estimated from Fig. 2A.

Concentrations of amplicons of a serial dilution of the SARS-CoV-2 positive control DNA showed in Fig. 2A were estimated via image analysis using Fiji.



(A)

Inverted image of Fig. 2B

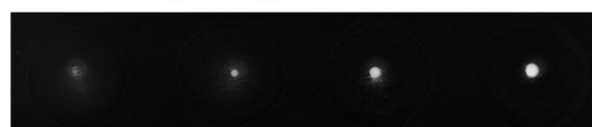
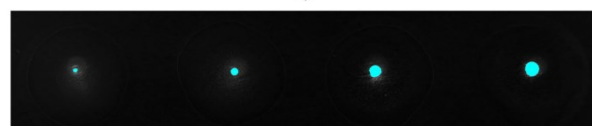


Image analysis by Fiji



(B)

Fig. S2. Image analysis of the visualized results (Fig. 2B).

(A) Plot of calculated area of the agglomeration against the initial copy number of the target. Blue dotted line indicates the value calculated from the NTC sample. (B) Upper image is the inverted image of Fig. 2B. Lower image is the analyzed image using Fiji. Light blue area indicates the region recognized as circular agglomeration.

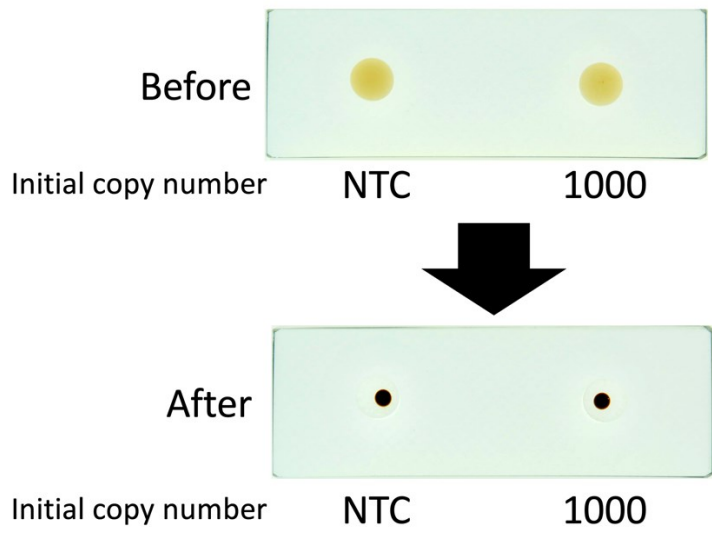


Fig. S3. Accumulation of magnetic microbeads on the hydrophobic surface.

Amplicons from NTC and 1,000 copies of SARS-CoV-2 gene were examined on the contact angle of 83°.