

Possible Approaches for Bead-Synthesis

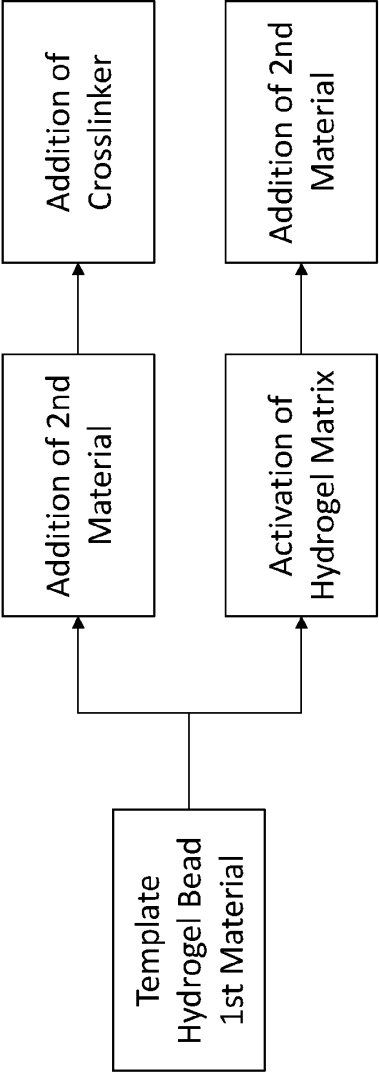


Figure 1

Examples illustrating Synthesis Approaches (embedded components, such as fluorescent label(s), magnetic particles etc. not shown)

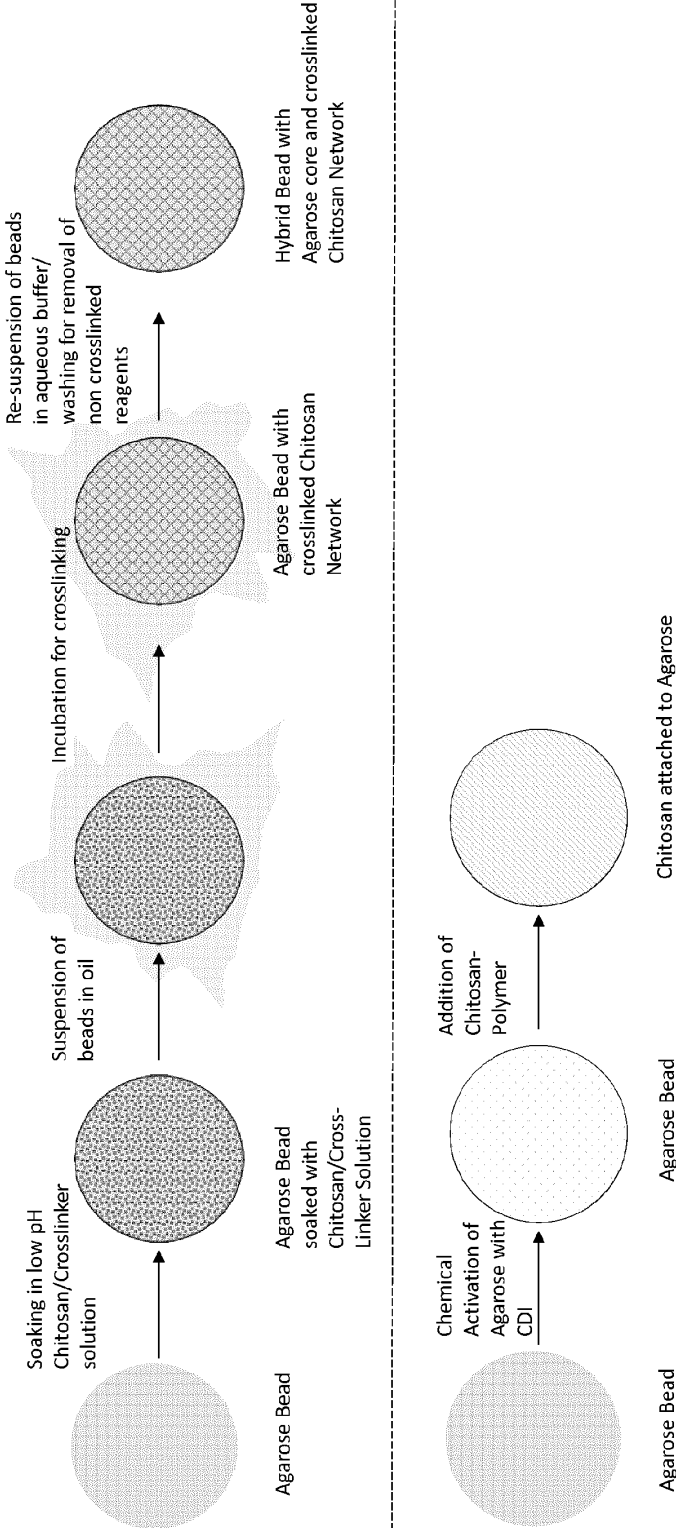


Figure 2

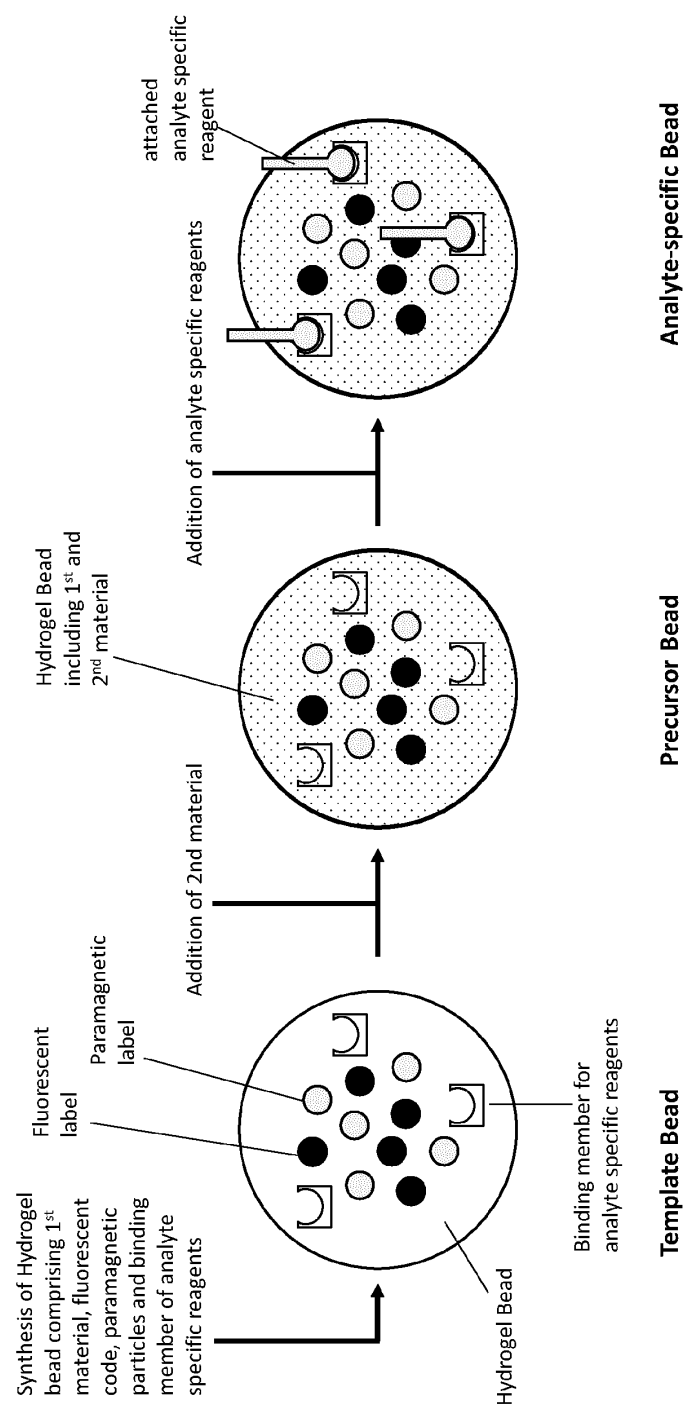


Figure 3

Characteristic Behavior of Nanoreactor Beads upon application of different pH and Temperature

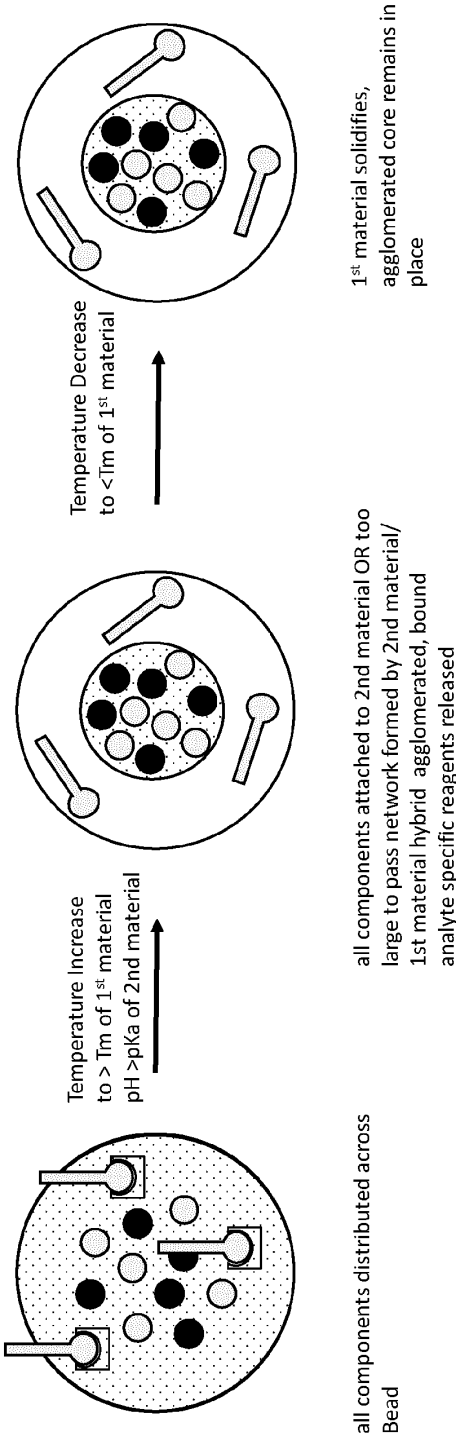
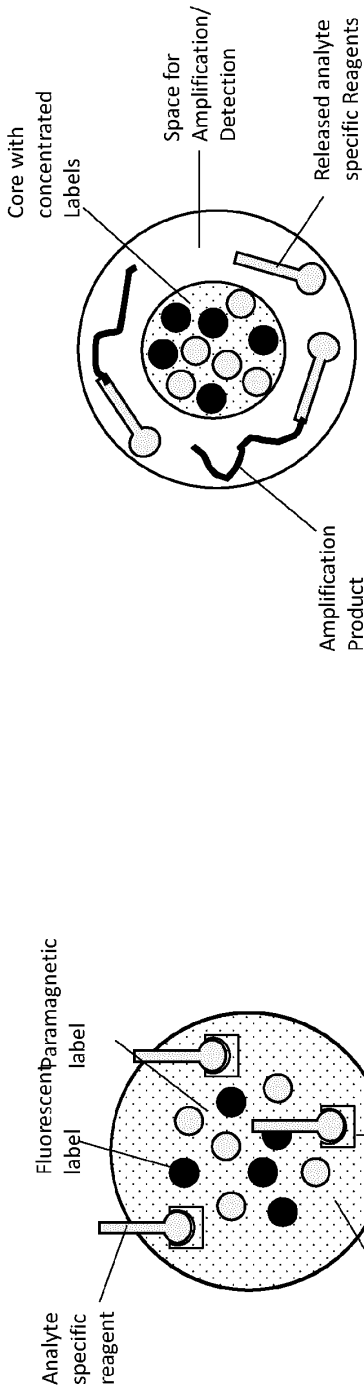


Figure 4

Characteristic Appearance of Nanoreactor Beads before and in/after use



Bead before Use

Bead in/after Use

Figure 5

Schematic Workflow realized with Nanoreactor Beads
(embedded components not shown)

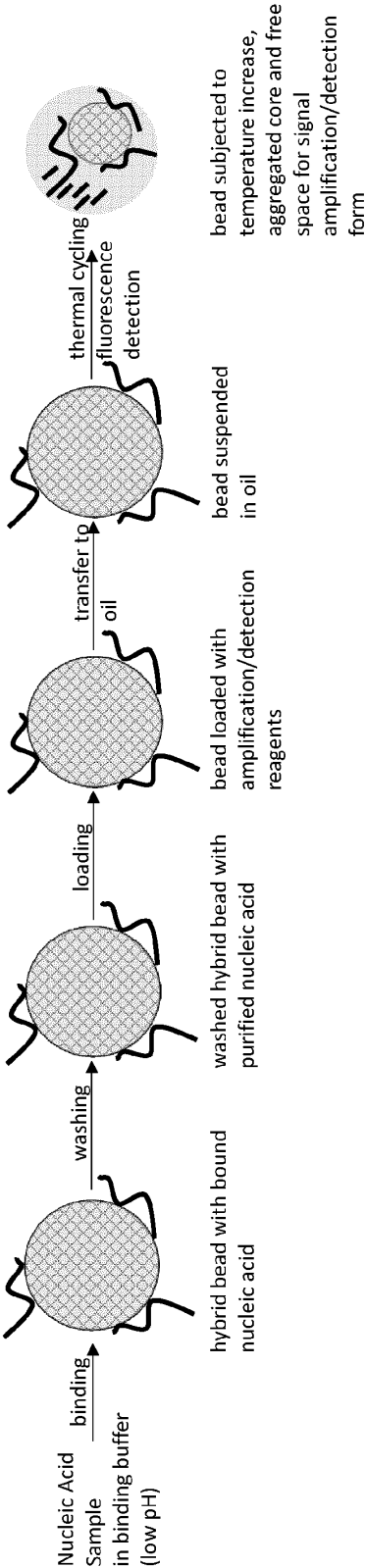
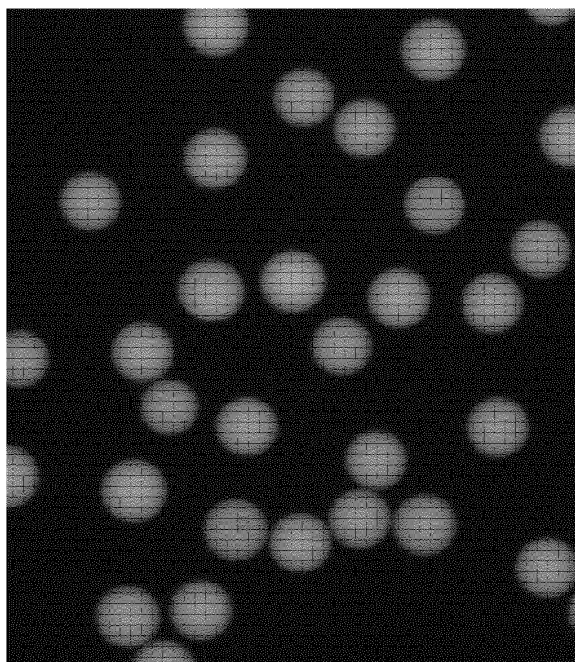
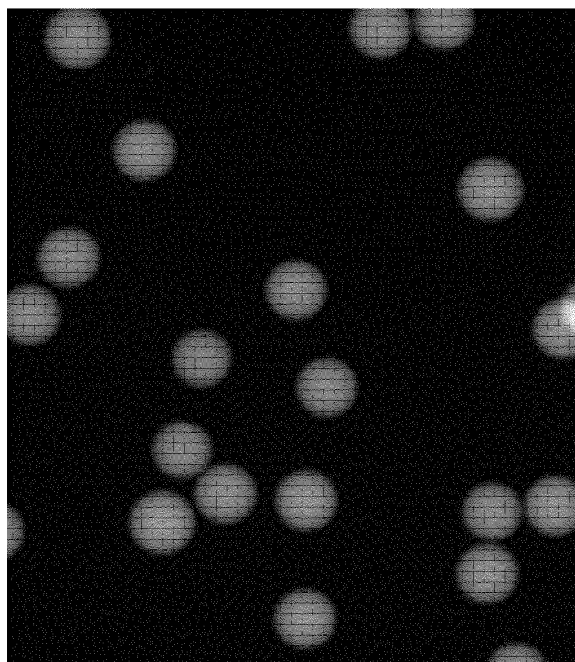


Figure 6



Fluorescence image of Beads after a 10 min incubation in 3.25 M Guanidinium HCl, imaged in PBS buffer



Fluorescence image of Beads after coupling, imaged in PBS buffer

Figure 7

Buffer: 1 2 3 4 5 6 7 8

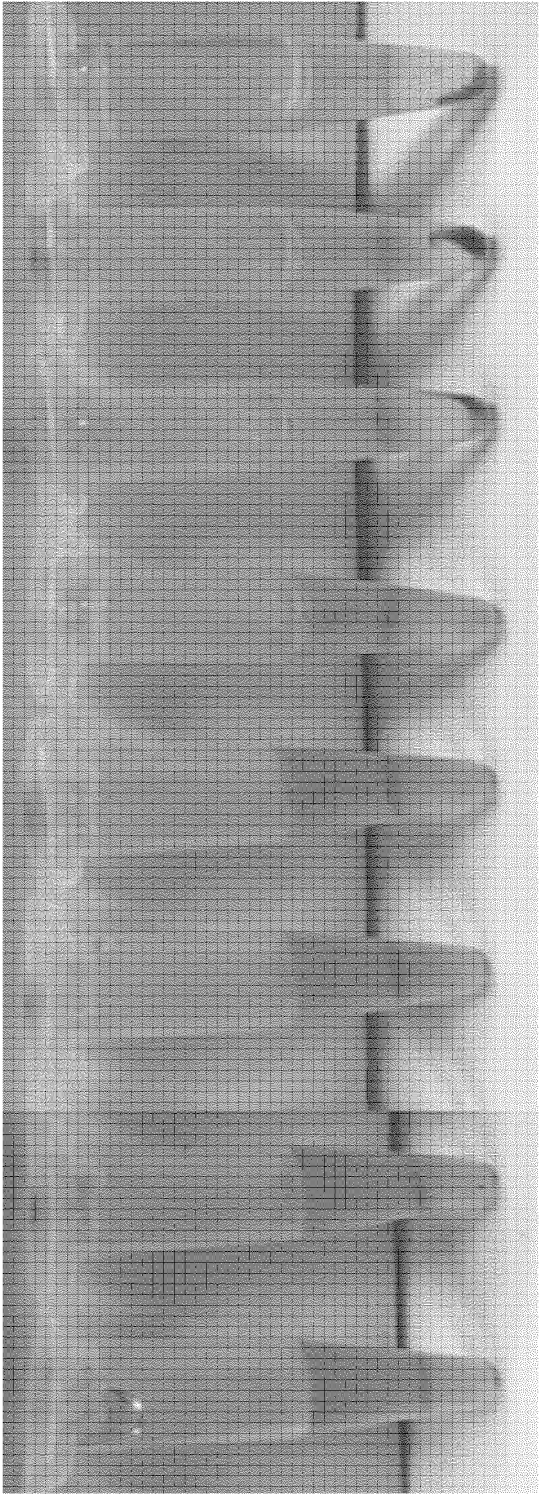


Figure 8

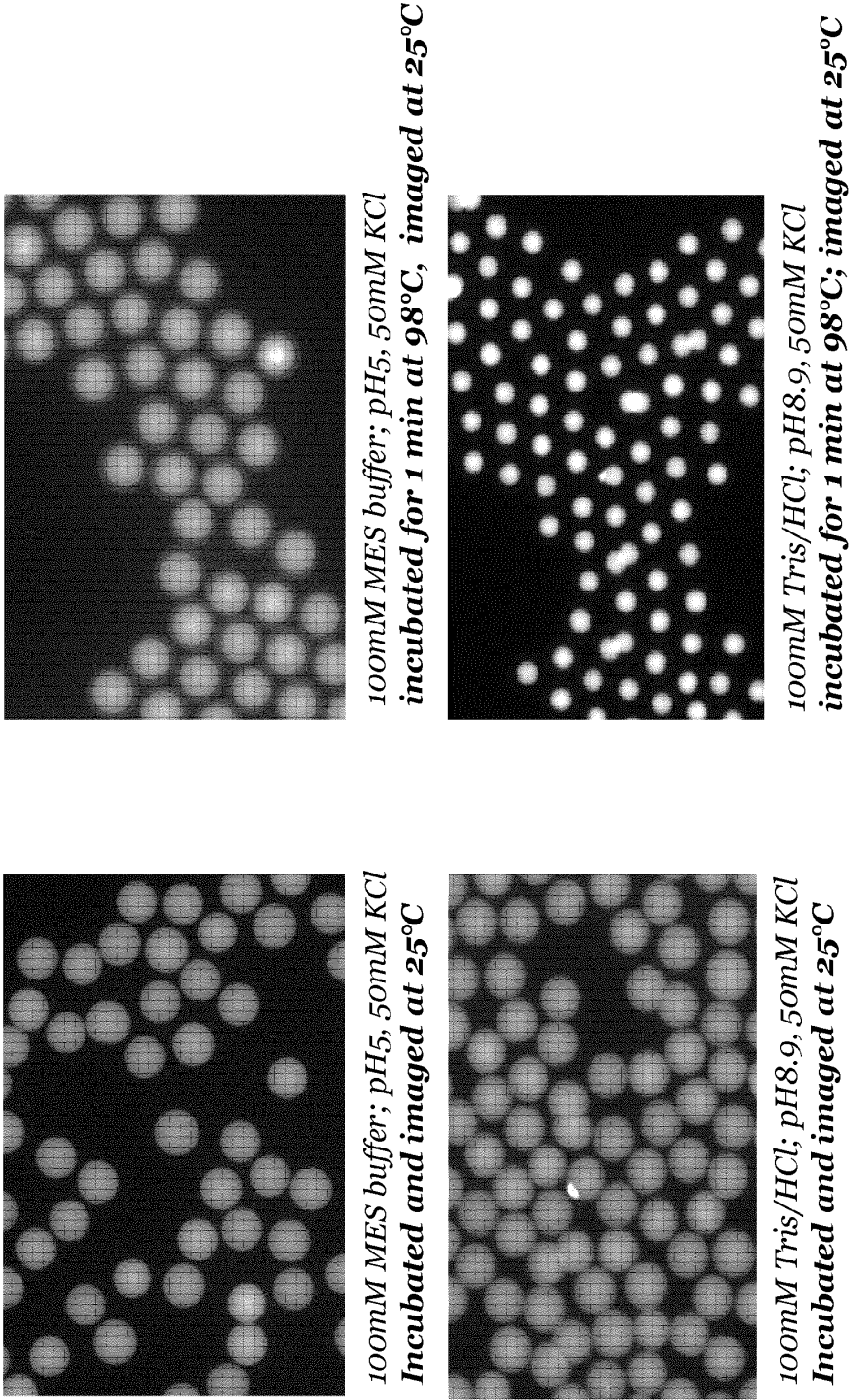


Figure 9

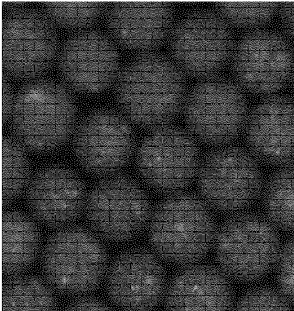
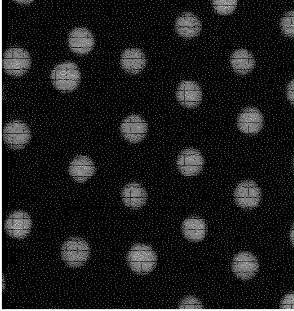
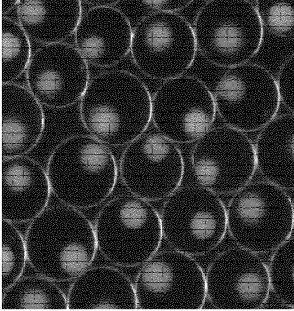
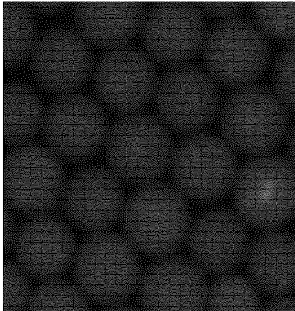
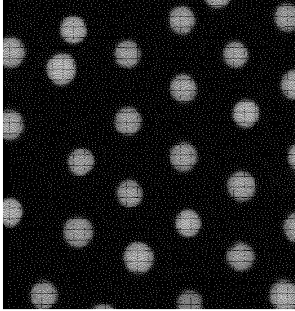
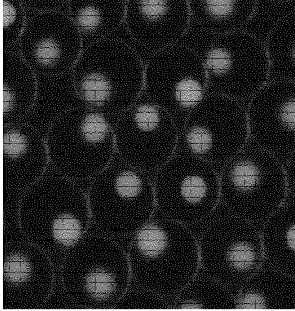
Channel	Room Temperature	RT , following 95°C incubation	RT , following 95°C incubation + overlay with Darkfield illumination
FAM			
Cys			

Figure 10

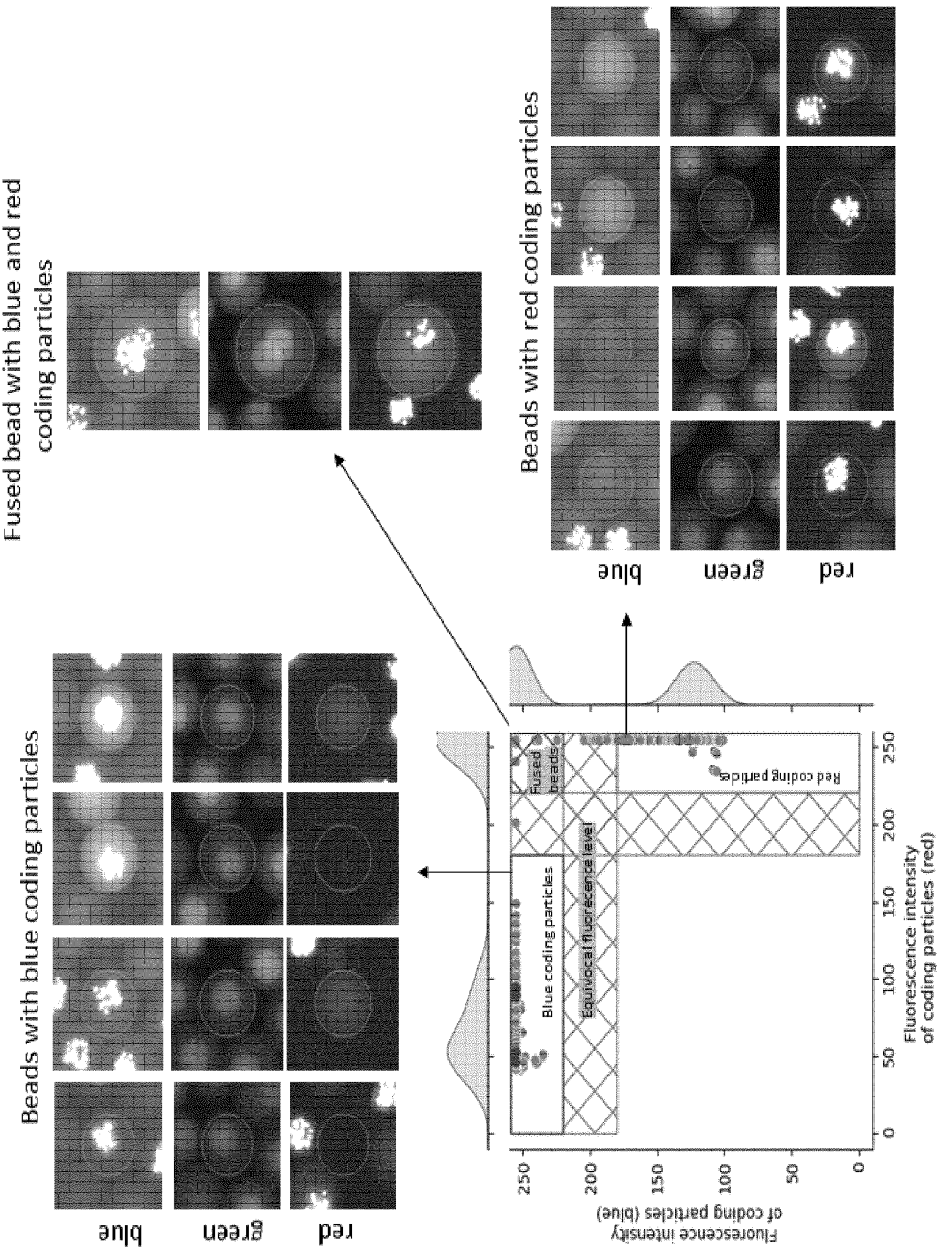


Figure 11

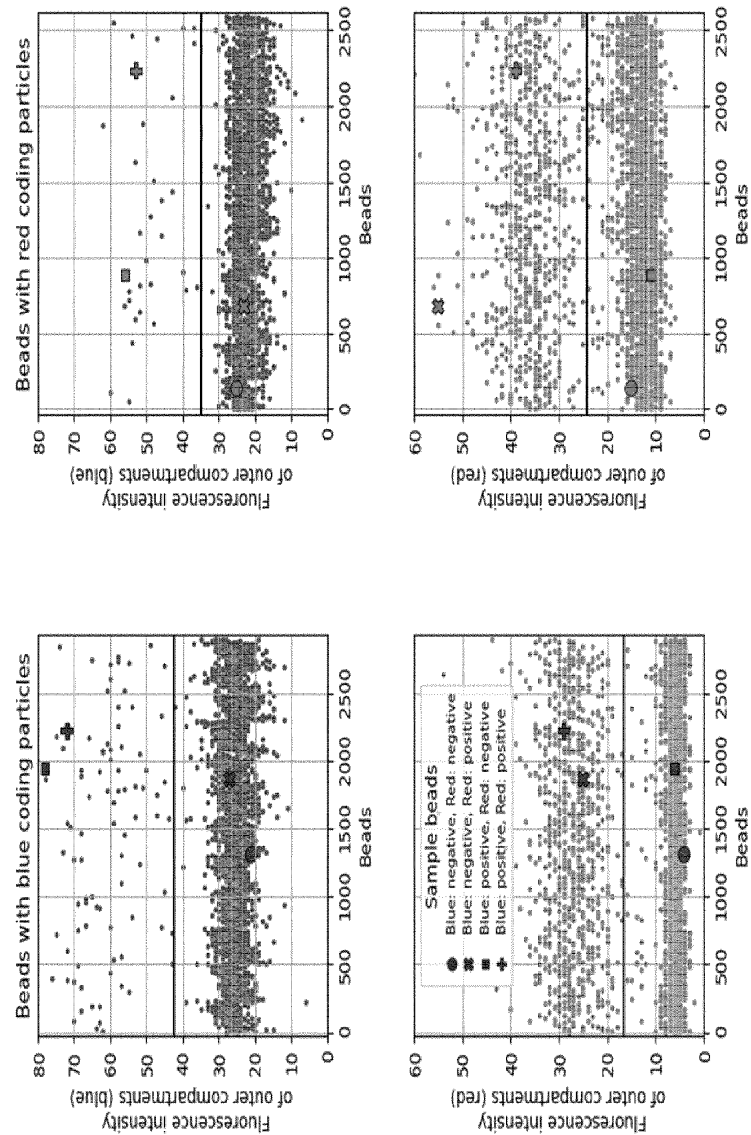


Figure 12

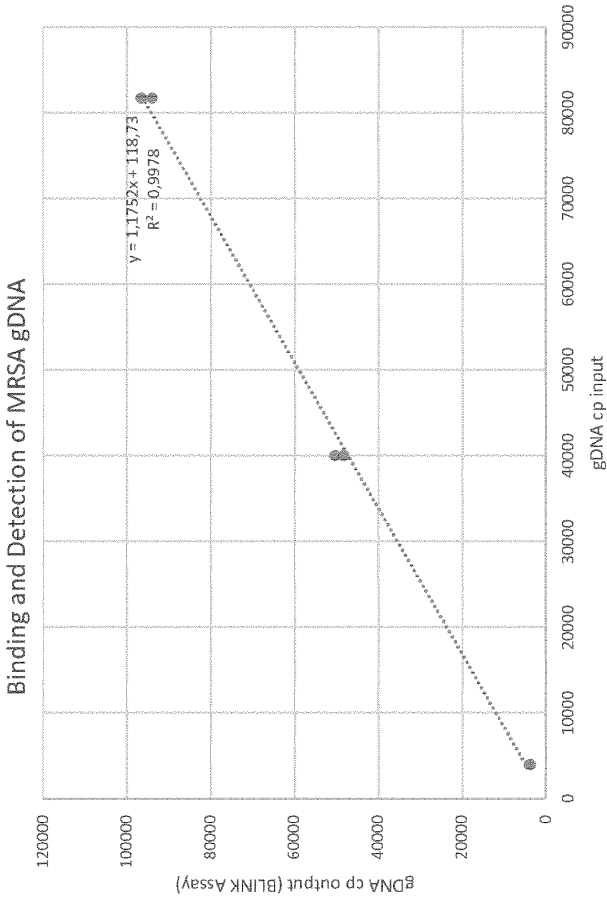
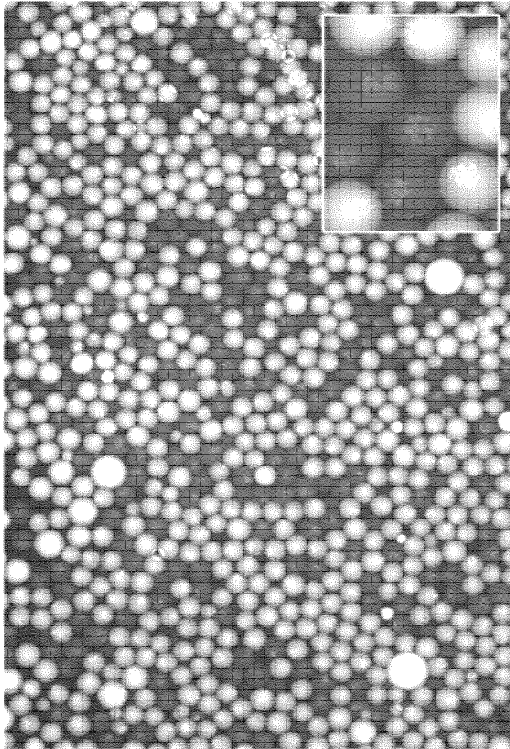


Figure 13 A

red channel: *mecA* detection



green channel: **Segmentation**

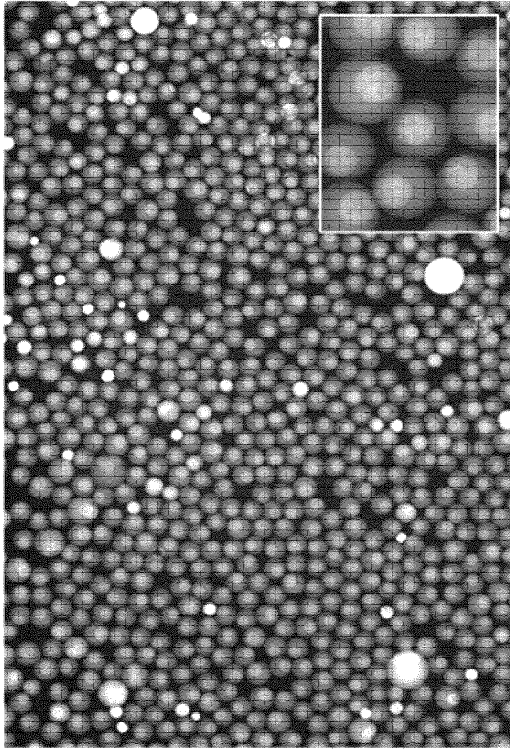


Figure 13 B

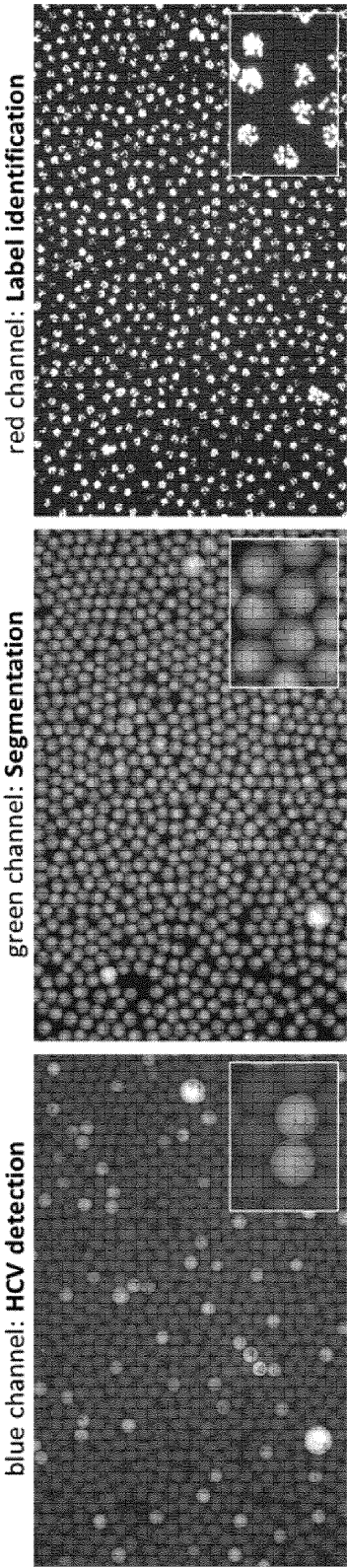


Figure 14

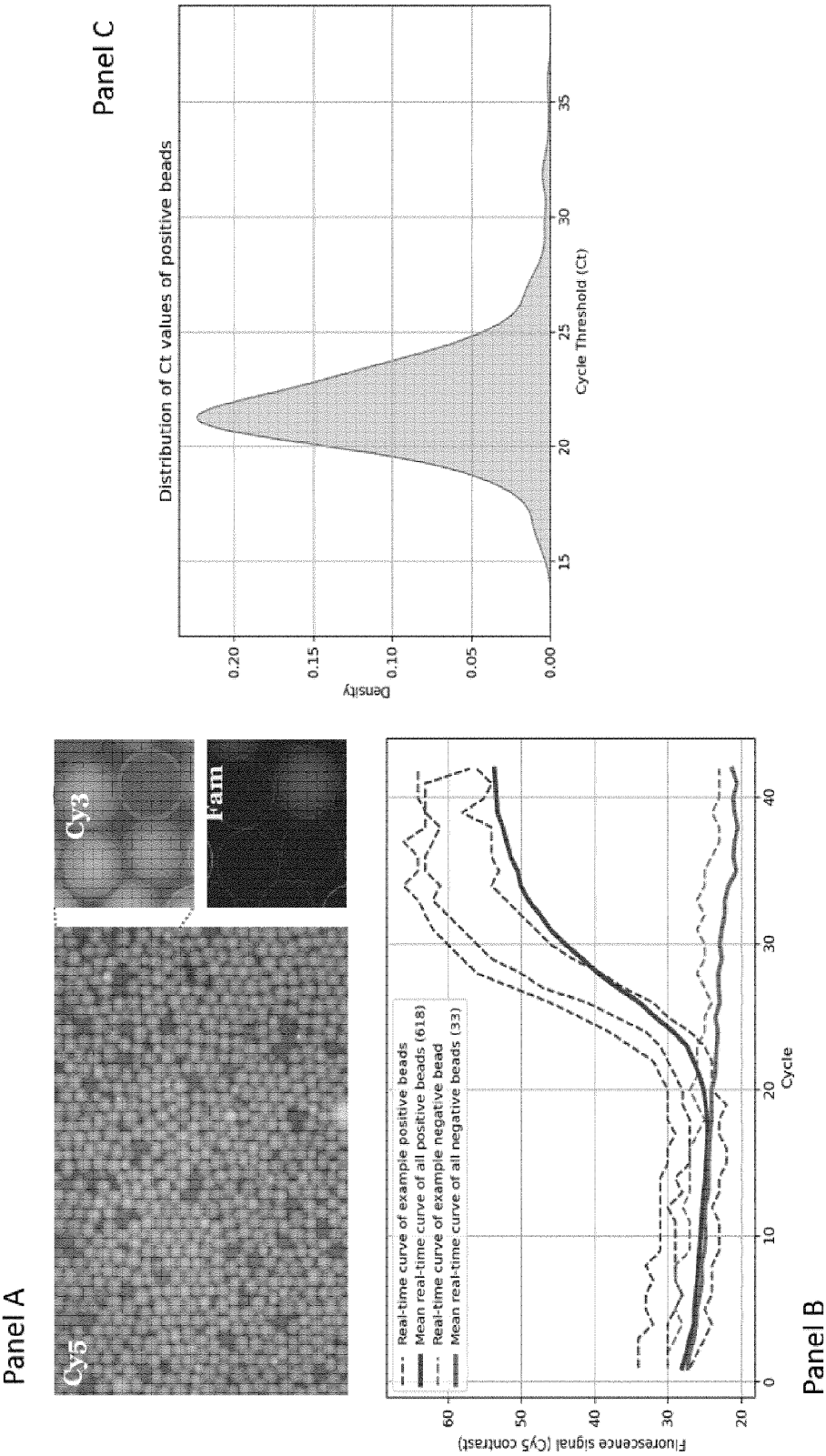


Figure 15