

FIG. 1A

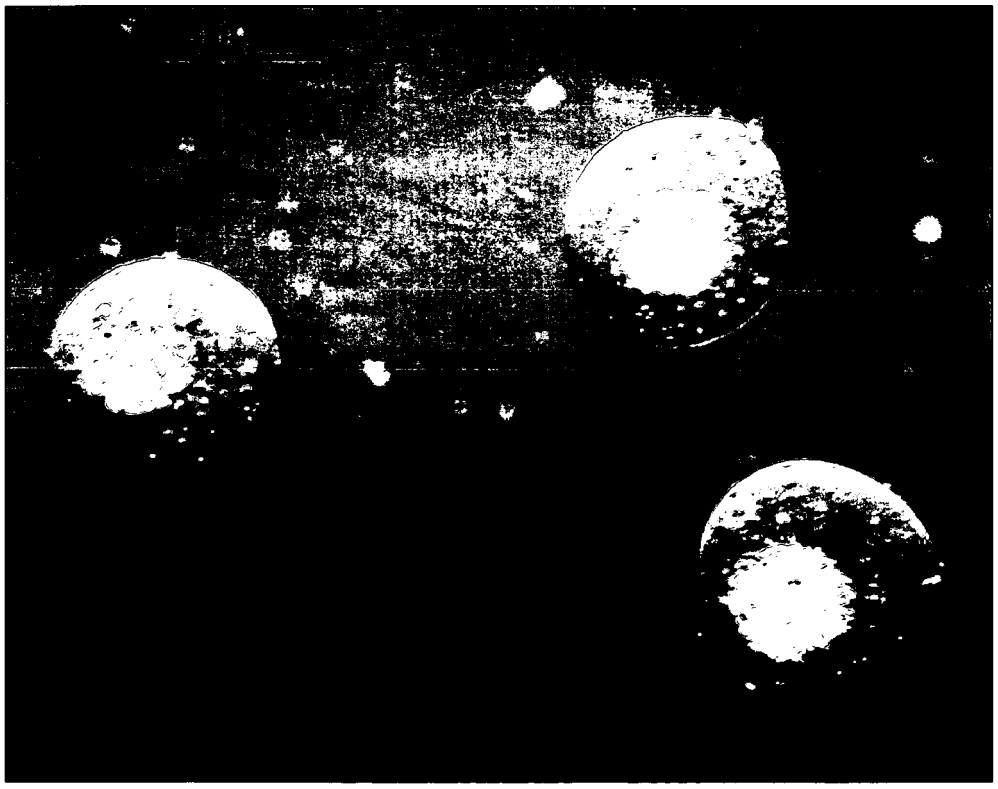


FIG. 1B

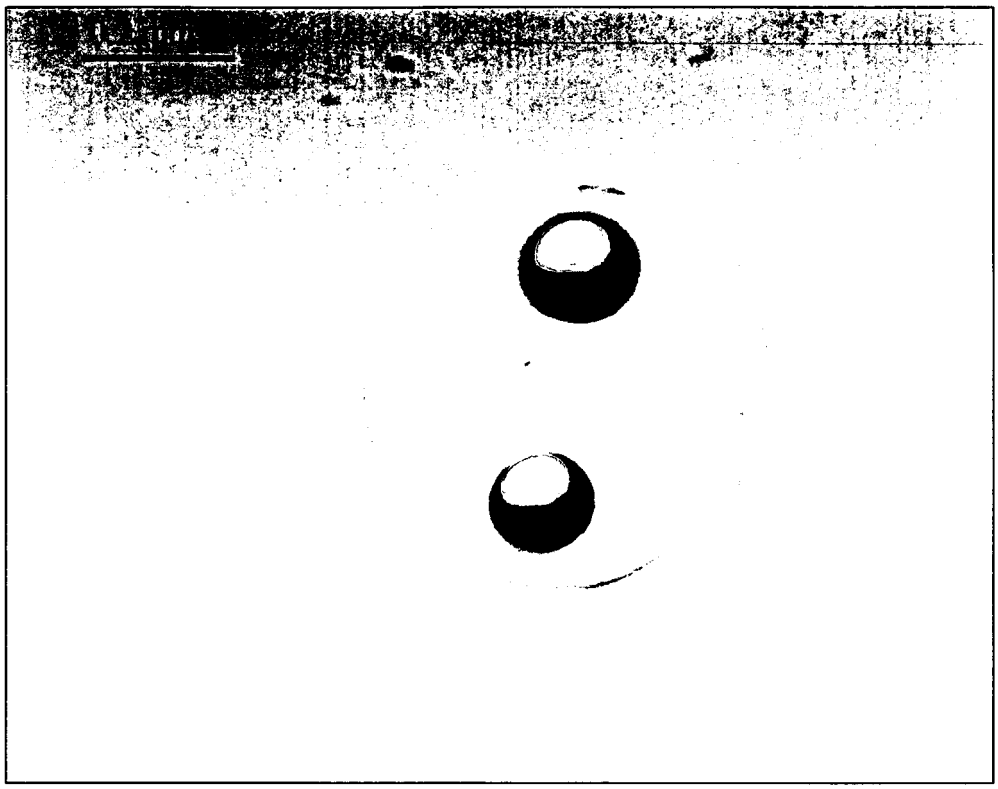


FIG. 2A

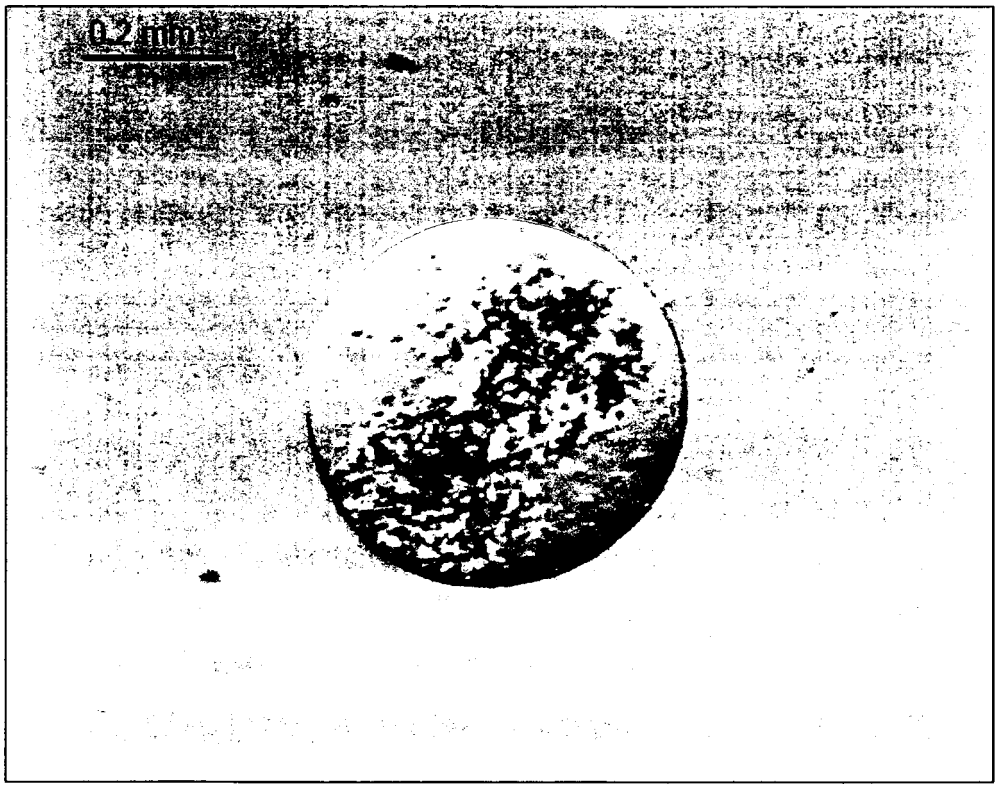


FIG. 2B

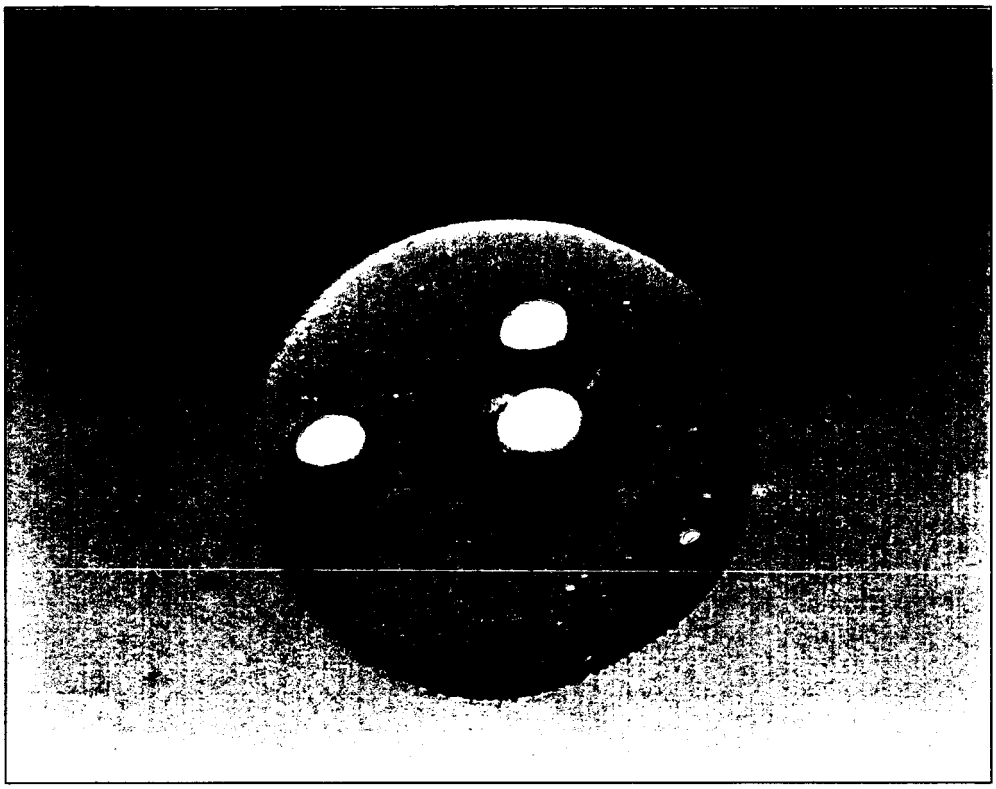


FIG. 3A

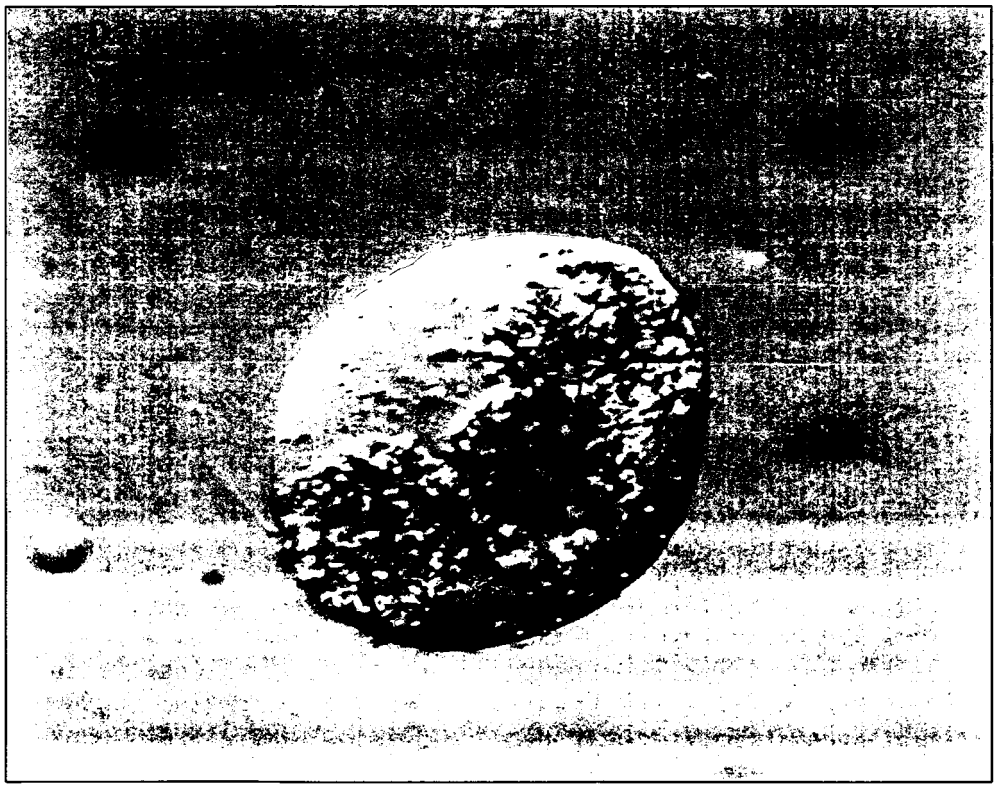


FIG. 3b

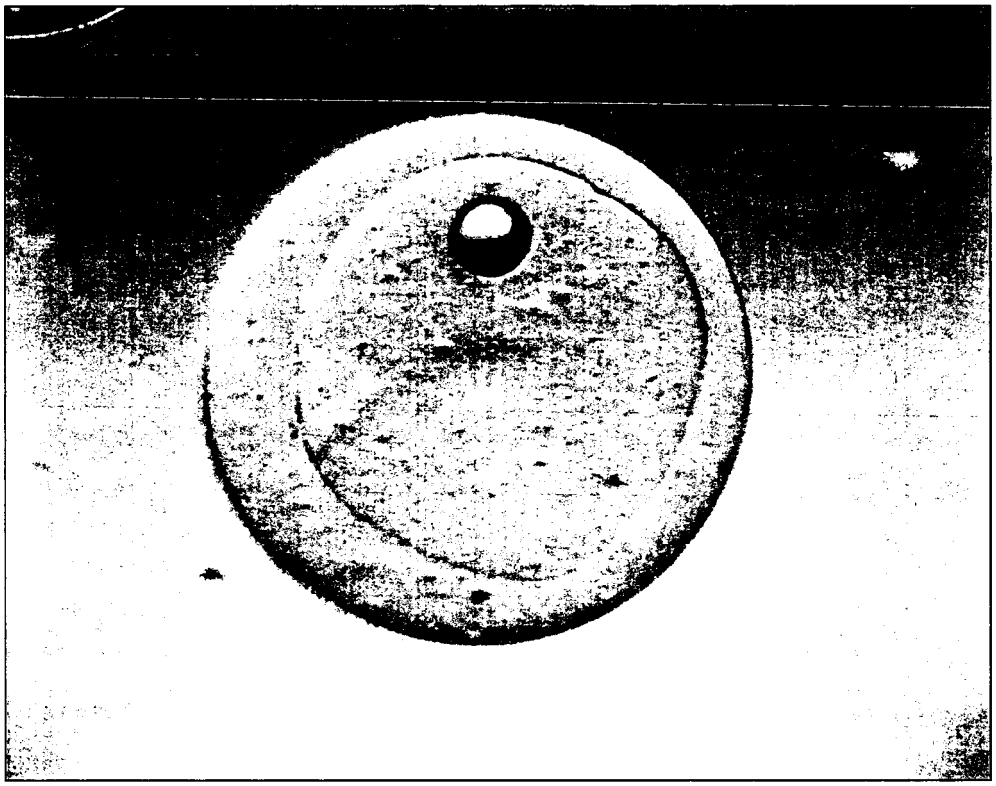


FIG. 4

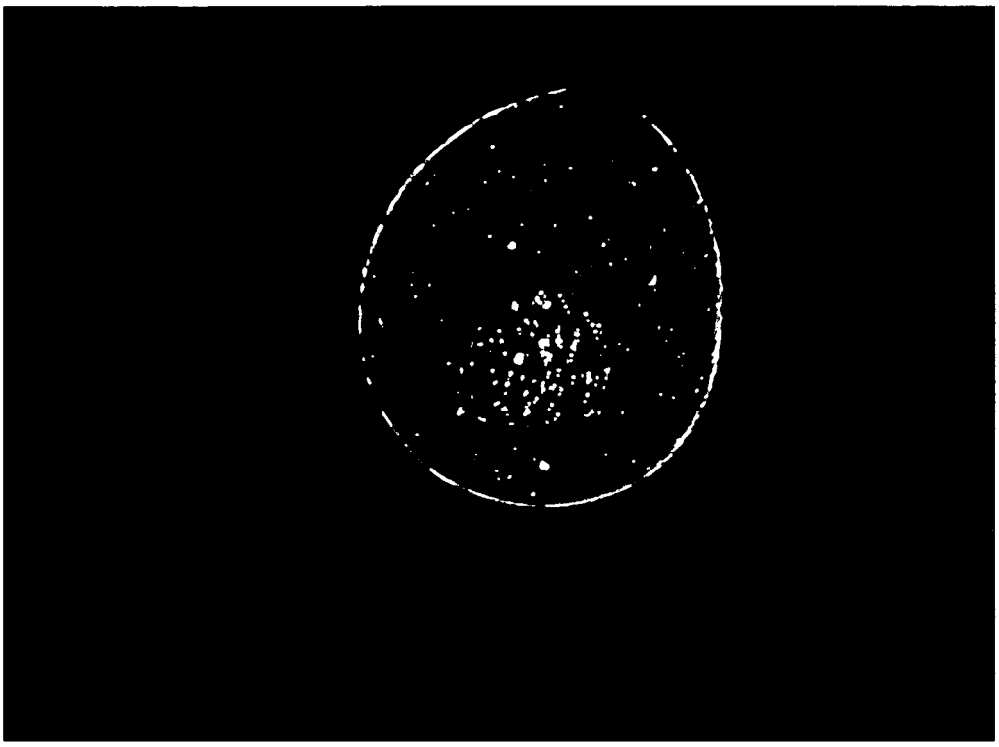


FIG. 5A

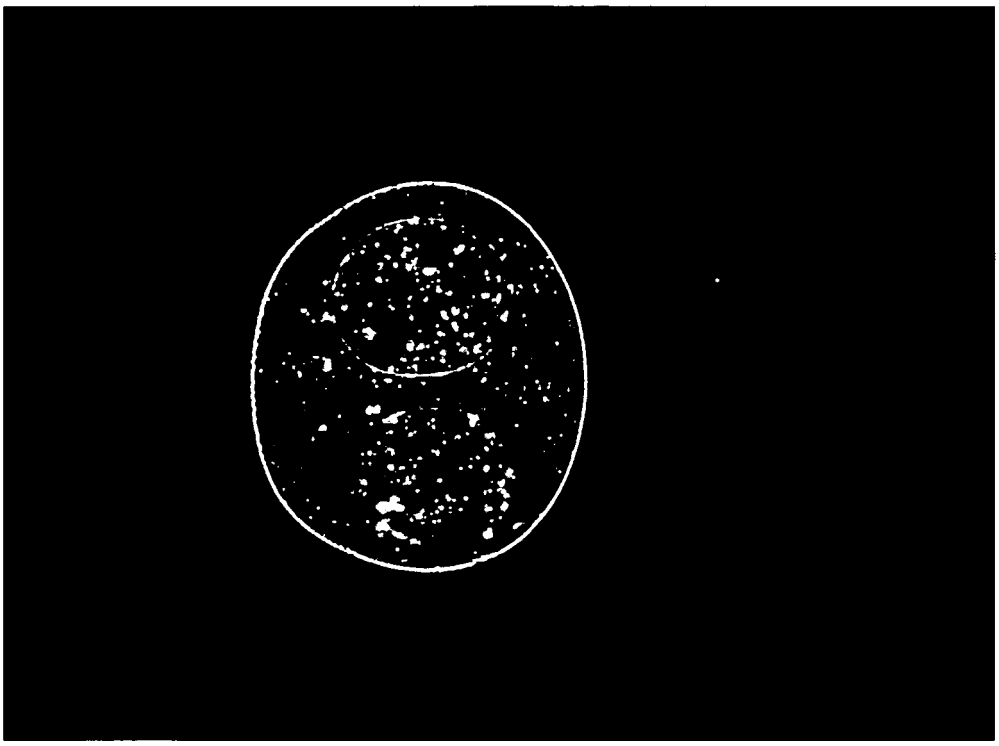


FIG. 5B

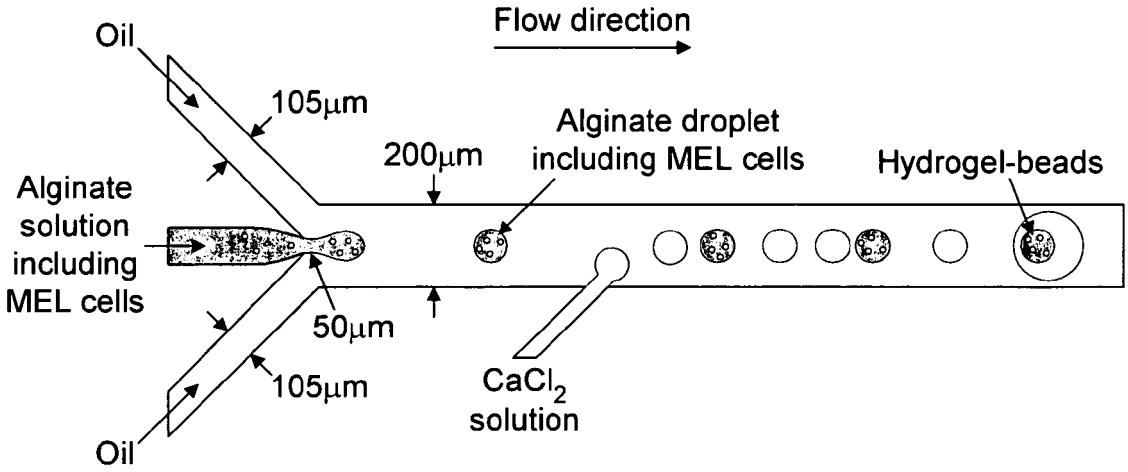

Flow direction
Oil
105μm
200μm
Alginate droplet including MEL cells
Hydrogel-beads
Alginate solution including MEL cells
50μm
105μm
$CaCl_2$ solution
Oil

FIG. 6A

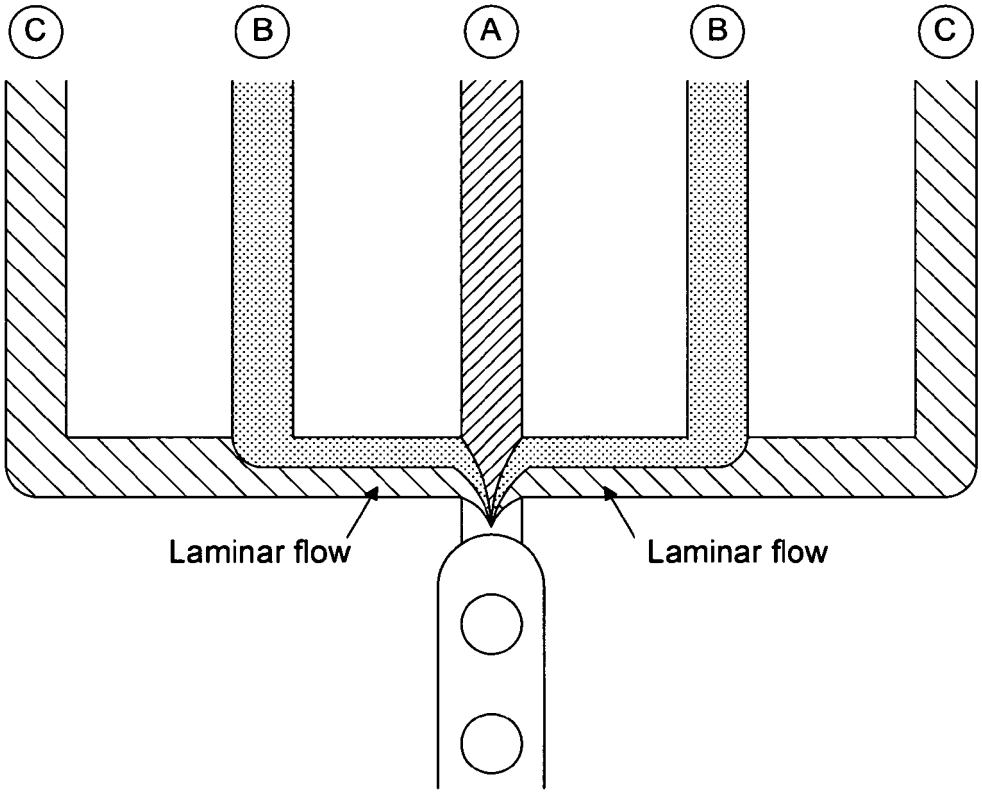

C
B
A
B
C
Laminar flow
Laminar flow

FIG. 6B

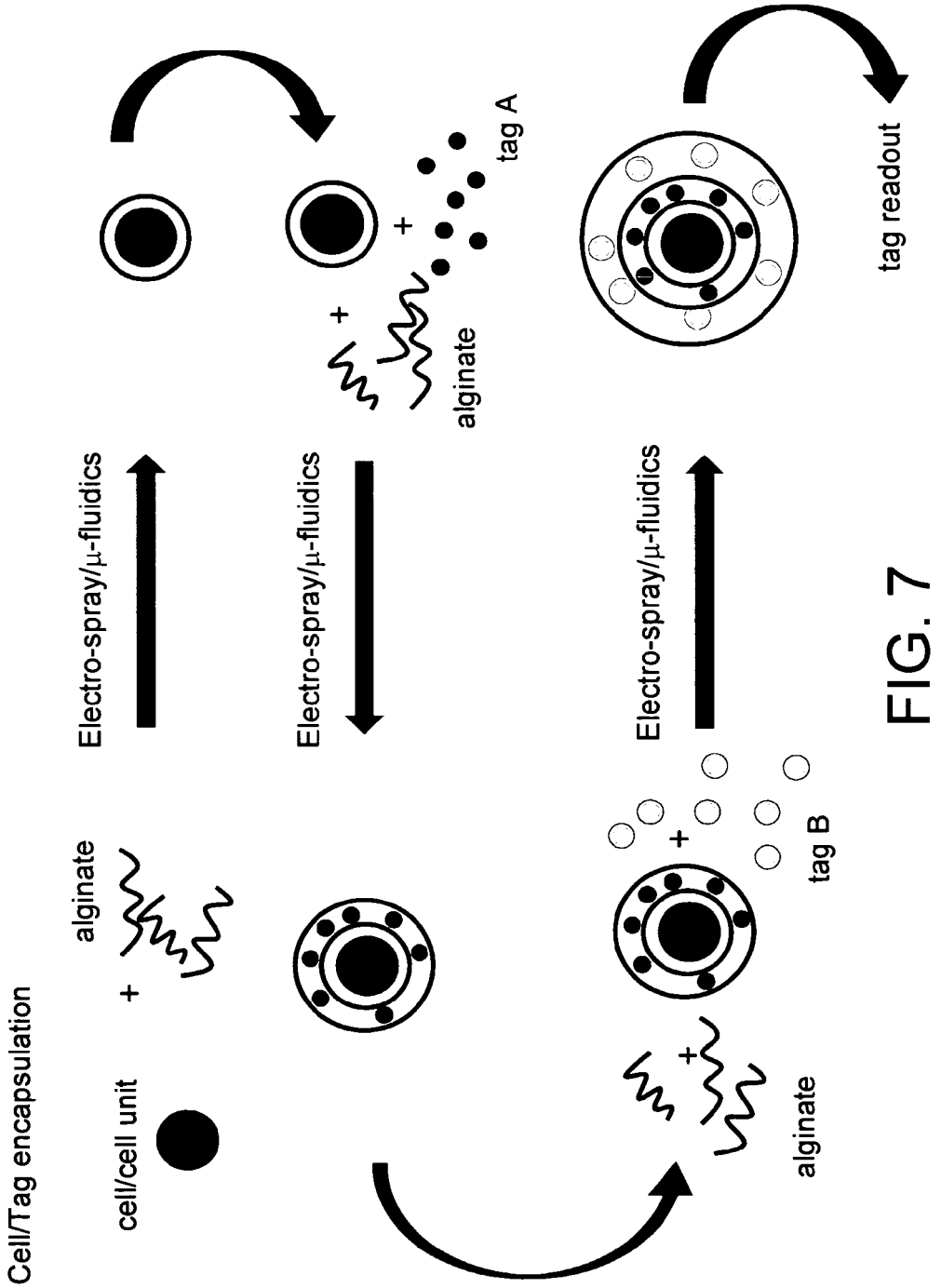

Cell/Tag encapsulation
cell/cell unit
+
alginate
Electro-spray/μ-fluidics
+
alginate
tag A
Electro-spray/μ-fluidics
+
alginate
tag B
Electro-spray/μ-fluidics
tag readout

FIG. 7



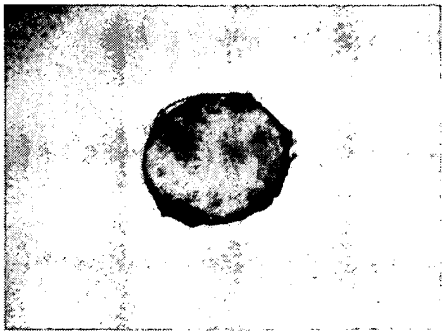
A



C



B



D