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(54) Title: MICROFLUIDIC MIXING AND/OR SEPARATOR

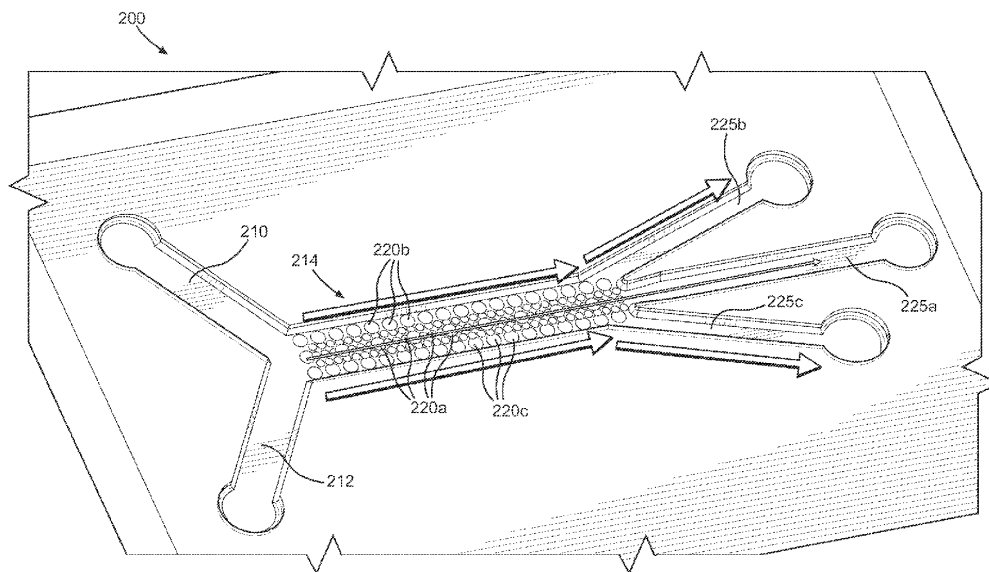


FIG. 5

(57) Abstract: A microfluidic device may have at least one inlet channel; a microfluidic channel having a first portion fluidly connected to the at least one inlet channel; and at least one outlet channel fluidly connected to a second portion of the microfluidic channel, wherein the microfluidic channel has a plurality of dimples extending away from an axis of the microfluidic channel. The at least one inlet channel includes a first inlet channel and a second inlet channel, and/or the at least one outlet channel includes a first outlet channel and a second outlet channel. In some embodiments, the plurality of dimples may be configured to separate nanoparticles of different sizes to the first outlet channel and the second outlet channel.

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