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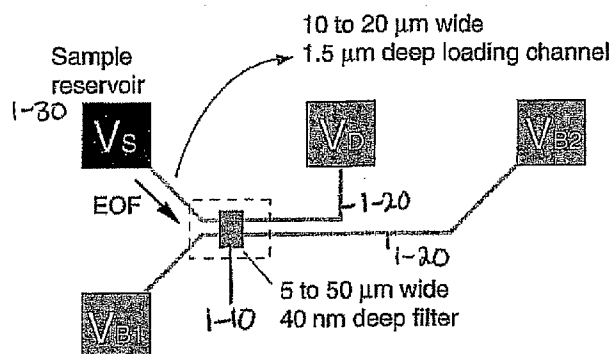
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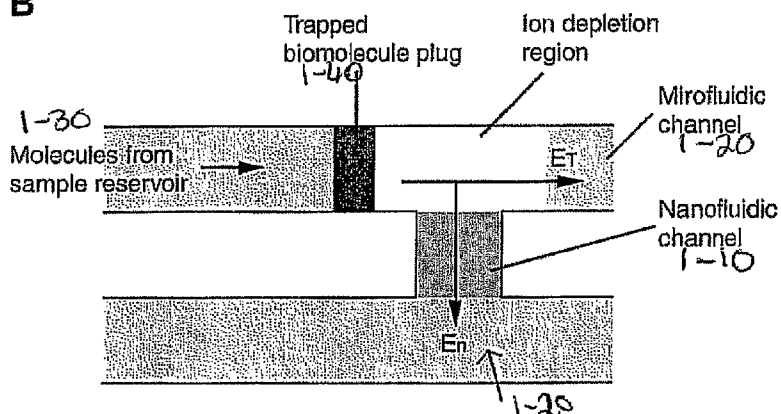
[Continued on next page]

(54) Title: ELECTROKINETIC CONCENTRATION DEVICE AND METHODS OF USE THEREOF

A



B



(57) Abstract: The present invention provides a device and methods of use thereof in concentrating a species of interest and/or controlling liquid flow in a device. The methods, inter-alia, make use of a device comprising microchannels, which are linked to nanochannels, whereby induction of an electric field in the linkage region between the microchannel and nanochannel, and a space charge layer is formed within the microchannel, which provides an energy barrier for said species of interest which enables its concentration in a region in the microchannel.



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