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(54) **Title:** MILLIFLUIDIC CHROMATOGRAPHY PLATE

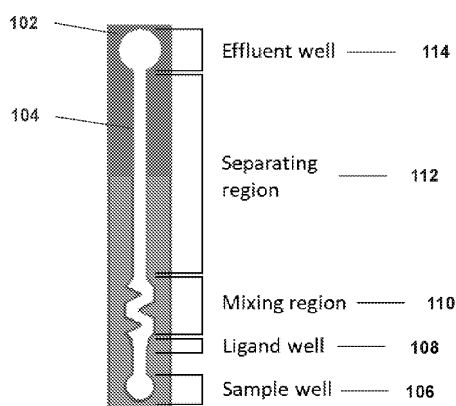


FIGURE 1

(57) **Abstract:** Chromatography plate for the separation and detec-
tion of ion selective ligands and their complexes. The combination of
an enhanced chromatographic separation process with an ultraviolet
imaging device for detection is developed for selective and simulta-
neous multiple ion sensing. The method involves the fabrication of
microfluidic channels on a porous chromatographic substrate to en-
hance separation of ligands containing ultraviolet chromophores and
their complexes with ions of interest. The chromatographic plate is
analyzed under an ultraviolet imaging device to quantify the concen-
tration of the different ions present in a sample.



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