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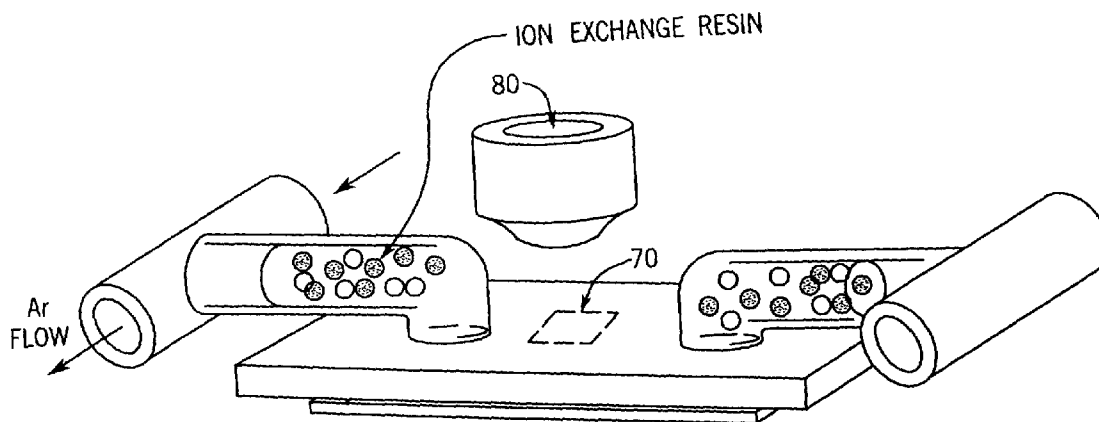
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(54) Title: APPARATUS AND PROCESS FOR THE LATERAL DEFLECTION AND SEPARATION OF FLOWING PARTICLES BY A STATIC ARRAY OF OPTICAL TWEEZERS



(57) Abstract: A method and apparatus for laterally deflecting and/or separating a flow of particles using a static array of optical tweezers. In an array of optical tweezers with a lattice constant larger than the size of a particle of interest, particles driven past the array by an external force experience an additional interaction with the array of traps. By altering the angle of the array of traps relative to the external force, the particles' movement from trap to trap inside the array can be biased away from the direction of the external force, thereby enabling selective deflection and/or separation of particles.



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