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(71) Applicant: **UNIVERSITY OF CHICAGO** [US/US];
5640 South Ellis Avenue, Suite 405, Chicago, IL 60637
(US).

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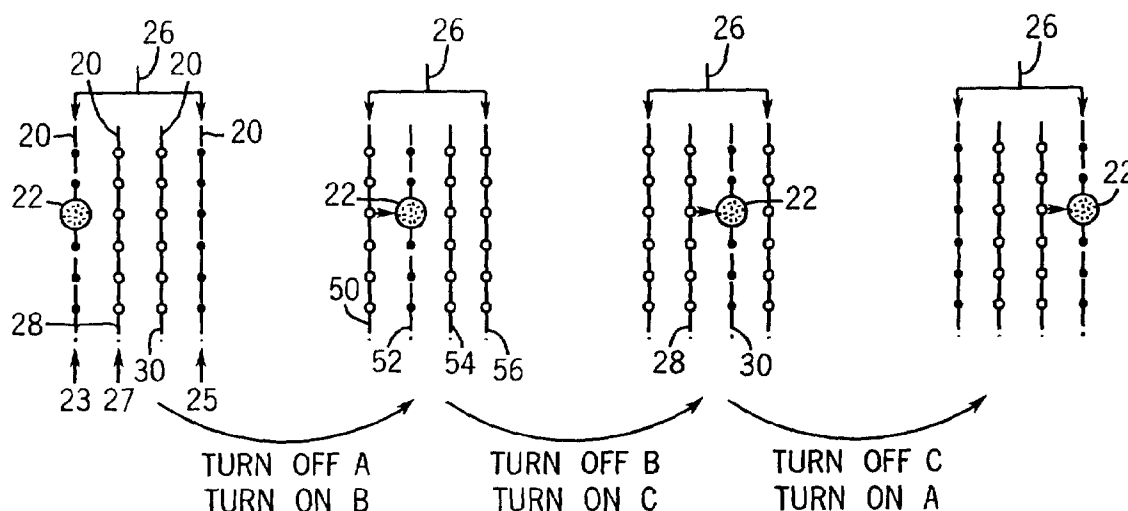
(72) Inventors: **GRIER, David, G.**; 1960 North Lincoln Park West, Chicago, IL 60614 (US). **BEHRENS, Sven, Holger**; F2, 16-15, 68159 Mannheim (DE).

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(74) Agent: **RECHTIN, Michael, D.**; Foley & Lardner, 330 North Wabash Avenue, Suite 3300, Chicago, IL 60611 (US).

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(54) Title: OPTICAL PERISTALTIC PUMPING WITH OPTICAL TRAPS



(57) Abstract: A method of use for holographic optical traps or gradients in which repetitive cycling of a small number of appropriately designed arrays of traps are used for general and very complex manipulations of particles and volumes of matter. Material transport results from a process resembling peristaltic pumping, with the sequence of holographically-defined trapping or holding manifolds resembling the states of a physical peristaltic pump.