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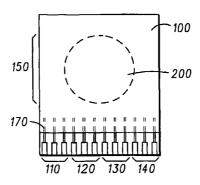
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(54) Title: PHASE MIXING



(57) Abstract: An exemplary system and method for providing substantially uniform mixing of fluid phases, wherein the frequency of operation, flow velocities and/or device dimensions generally correspond to otherwise substantially diffusion limited applications, is disclosed as comprising inter alia: a mixing chamber; a plurality of electrodes (150) for generating an electric field; an electromagnet (200) for generating a magnetic field; and a controller for oscillating the electric field and the magnetic field in order to produce a periodic frequency-difference phase cycling of the electric and magnetic fields. Disclosed features and specifications may be variously controlled, adapted or otherwise optionally modified to improve mixing operation in any diffusion limited application. Exemplary embodiments of the present invention representatively provide for efficient mixing of fluid phases at relatively high frequencies and may be readily integrated with existing micro-scale technologies for the improvement of device package form factors, weights and other manufacturing and/or device performance metrics.



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| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) USPAT; USOCR; DERWENT; USPG-PUB; EPO; JPO | | | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | | | |
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | | | Relevant to claim No. |
| Y | US 6,197,176 B1 (PETHIG et al.) 06 March 2001, see col. 2, lines 11-35 and col. 3, lines 1-13. | | | 1-9 |
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