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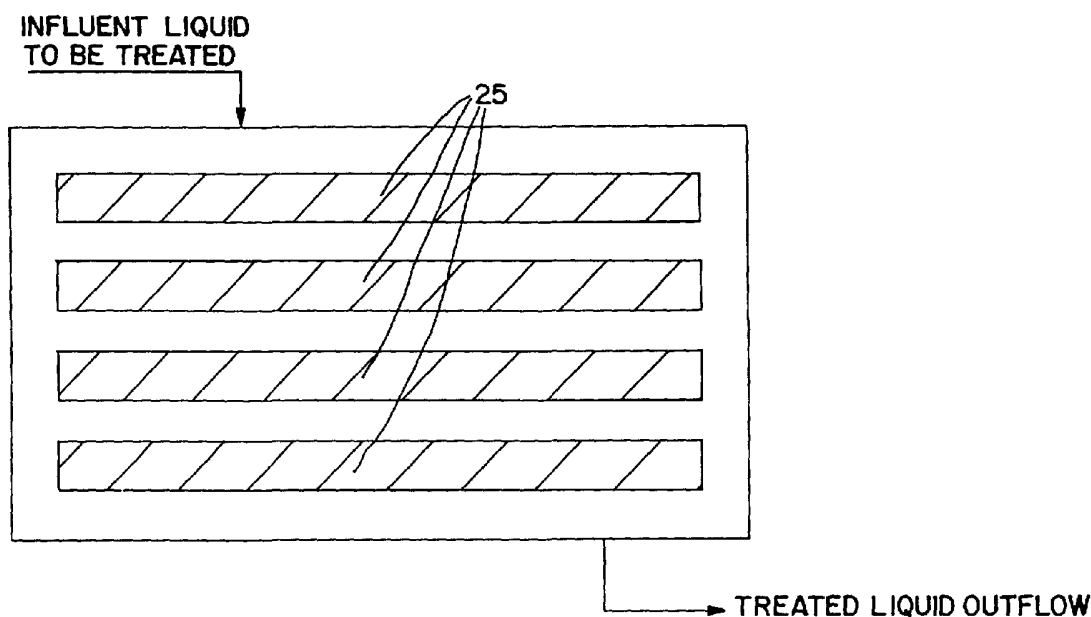
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(54) Title: AIRLIFT MEMBRANE DEVICE, BIOREACTOR AND BIOREACTION PROCESS



(57) Abstract: Banks (25) of airlift membrane devices each having individual filter elements (12) potted into a housing (10) having a standoff ring (14) and a support ring (15) using potting compound (13) are disclosed to carry out bioreaction processes using bioreactors.

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INTERNATIONAL SEARCH REPORT

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PCT/US03/23614

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C02F 1/42; B01D 61/00

US CL : 210/151, 220, 620

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : NONE

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
NONE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,707,514 A (YAMASAKI et al.) 13 January 1998 (13.01.1998)	1-19
A	US 6,284,135 B1 (OOKATA) 04 September 2001 (09.04.2001)	1-19

Further documents are listed in the continuation of Box C.

See patent family annex.

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"P" document published prior to the international filing date but later than the priority date claimed		

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