

Title (en)
ADVANCED ACTIVE DEVICES AND METHODS FOR MOLECULAR BIOLOGICAL ANALYSIS AND DIAGNOSTICS

Title (de)
FORTSCHRITTLICHE, AKTIVE EINRICHTUNGEN UND VERFAHREN ZUR MOLEKULAREN, BIOLOGISCHEN ANALYSE UND DIAGNOSE

Title (fr)
DISPOSITIFS ACTIFS EVOLUES ET PROCEDES D'ANALYSE ET DE DIAGNOSTIC EN BIOLOGIE MOLECULAIRE

Publication
EP 1054949 A4 20060927 (EN)

Application
EP 99908135 A 19990211

Priority

- US 9903080 W 19990211
- US 2661898 A 19980220
- US 23956999 A 19990129
- US 24092099 A 19990129
- US 23959899 A 19990129
- US 24048999 A 19990129
- US 24093199 A 19990129

Abstract (en)
[origin: WO9942558A1] Methods of manufacture and devices for performing active biological operations utilize various structures to advantageously collect and provide charged biological materials to an array of microlocations. In one embodiment, a device includes focusing electrodes to aid in the direction and transport of materials from a collection electrode to an array. Preferably, one or more intermediate transportation electrodes are utilized, most preferably of monotonically decreasing size between the collection electrode and the array, so as to reduce current density mismatches. In another aspect, a flow cell is utilized over devices to provide containment of solution containing materials to be analyzed. In yet another embodiment, a concentric ring design is provided. Various flip-chip embodiments are disclosed.

IPC 1-7
C12M 1/40; **B01J 19/00**; **B01L 3/00**

IPC 8 full level
B01L 3/00 (2006.01); **C12M 1/42** (2006.01); **G01N 27/447** (2006.01); **G01N 37/00** (2006.01); **G11C 13/02** (2006.01); **G11C 19/00** (2006.01)

CPC (source: EP)
B01L 3/502707 (2013.01); **B01L 3/502761** (2013.01); **B82Y 10/00** (2013.01); **G11C 13/0014** (2013.01); **G11C 13/0019** (2013.01); **G11C 19/00** (2013.01); **H01L 29/6656** (2013.01); **B01L 3/502715** (2013.01); **B01L 2200/0647** (2013.01); **B01L 2300/0636** (2013.01); **B01L 2300/0645** (2013.01); **B01L 2300/0877** (2013.01); **B01L 2400/0403** (2013.01); **H01L 2924/0002** (2013.01)

Citation (search report)

- [AD] US 5605662 A 19970225 - HELLER MICHAEL J [US], et al
- [A] WO 9745557 A1 19971204 - MOTOROLA INC [US], et al
- [A] EP 0376611 A2 19900704 - UNIV LELAND STANFORD JUNIOR [US]
- See references of WO 9942558A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 9942558 A1 19990826; AU 2763899 A 19990906; AU 742960 B2 20020117; BR 9909207 A 20011106; CA 2320798 A1 19990826; CA 2320798 C 20080115; CN 1237165 C 20060118; CN 1296525 A 20010523; EP 1054949 A1 20001129; EP 1054949 A4 20060927; JP 2003524750 A 20030819; KR 20010041147 A 20010515; NZ 506204 A 20030630

DOCDB simple family (application)
US 9903080 W 19990211; AU 2763899 A 19990211; BR 9909207 A 19990211; CA 2320798 A 19990211; CN 99805003 A 19990211; EP 99908135 A 19990211; JP 2000532499 A 19990211; KR 20007009196 A 20000821; NZ 50620499 A 19990211