20000455-4
IPOS Copy—
for reference only.

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G01N 27/447 — A1

(11) International Publication Number: **WO 99/24827**

(43) International Publication Date: 20 May 1999 (20.05.99)

(21) International Application Number: PCT/US98/23661

(22) International Filing Date: 6 November 1998 (06.11.98)

(30) Priority Data:
08/965,738 7 November 1997 (07.11.97) US

(71) Applicant: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 22nd floor, 300 Lakeside Drive, Oakland, CA 94612-3550 (US).

(72) Inventors: SIMPSON, Peter, C.; 95 Linda Avenue #308, Oakland, CA 94611 (US). MATHIES, Richard, A.; 93 Danefield Place, Moraga, CA 94556-1224 (US). WOOLLEY, Adam, T.; Apartment #1, 45 Dartmouth Street, Belmont, MA 02178-3643 (US).

(74) Agent: EGAN, William, J., III; Fish & Richardson P.C., Suite 100, 2200 Sand Hill Road, Menlo Park, CA 94025 (US).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(54) Title: MICROFABRICATED CAPILLARY ARRAY ELECTROPHORESIS DEVICE AND METHOD

(57) Abstract

A capillary array electrophoresis (CAE) micro-plate with an array of separation channels (50) connected to an array of sample reservoirs (101) on the plate. The sample reservoirs (101) are organized into one or more sample injectors (100–116). One or more waste reservoirs are provided to collect wastes from reservoirs in each of the sample injectors. Additionally, a cathode reservoir (120) is also multiplexed with one or more separation channels. To complete the electrical path; an anode reservoir (180) which is common to some or all separation channels is also provided on the micro-plate. Moreover, the channel layout keeps the distance from the anode to each of the cathodes approximately constant.

