(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
28 December 2000 (28.12.2000)

PCT

(10) International Publication Number
WO 00/78445 A1

(51) International Patent Classification[7]: B01J 19/00, C30B 7/00, 29/58

(21) International Application Number: PCT/US00/15711

(22) International Filing Date: 7 June 2000 (07.06.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/336,134 18 June 1999 (18.06.1999) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 09/336,134 (CON)
Filed on 18 June 1999 (18.06.1999)

(71) Applicant *(for all designated States except US)*: **THE REGENTS OF THE UNIVERSITY OF CALIFORNIA** [US/US]; 1111 Franklin Street, Oakland, CA 94607-5200 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **SANTARSIERO, Bernard, D.** [US/US]; 3824 West Fox Run Way, San Diego, CA 92111-7707 (US). **SCHULTZ, Peter, G.** [US/US]; 1650 La Jolla Ranch Road, La Jolla, CA 92037 (US). **YEGIAN, Derek, T.** [US/US]; 2 Buckley Court, Oakland, CA 94602 (US). **NORDMEYER, Robert, A.** [US/US]; 2061 Altamont Road, San Leandro, CA 94578 (US). **KOLBE, William, F.** [US/US]; 2032 Ascot Drive, Moraga, CA 94556 (US). **UBER, Donald, C.** [US/US]; 483 Ridgeview Court, Pleasant Hill, CA 94523 (US). **STEVENS, Raymond, C.** [US/US]; 7096 Caminito Valverde, La Jolla, CA 92037 (US). **JAKLEVIC, Joseph, M.** [US/US]; 825 Skywood Road, Lafayette, CA 94549 (US). **CORNELL, Earl** [US/US]; 2827 Dandelion Court, Antioch, CA 94509 (US). **JIN, Jian** [US/US]; 2137 California Street, Berkeley, CA 94703 (US). **JONES, Arthur, L.** [US/US]; 7925 Winthrope Street, Oakland, CA 94605 (US).

(74) Agent: **WEITZ, David, J.**; Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, CA 94304-1050 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

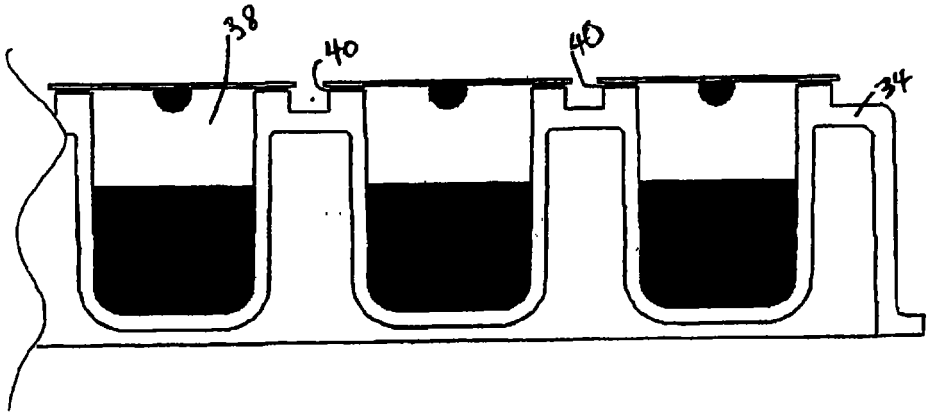
(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European

[Continued on next page]

(54) Title: METHODS AND APPARATUS FOR PERFORMING ARRAY MICROCRYSTALLIZATIONS



G00001



(57) Abstract: A method is provided for performing array microcrystallizations to determine suitable crystallization conditions for a molecule. The method comprises forming an array of microcrystallizations, each microcrystallization comprising a drop containing a molecule to be crystallized, the drop having a volume of less than 1 μL; storing the array of microcrystallizations under conditions suitable for molecule crystals to form in the drops in the array; and detecting molecule crystal formation in the drops.

WO 00/78445 A1



162162

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*

Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.