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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 February 2002 (14.02.2002)

PCT

(10) International Publication Number
WO 02/013122 A3

(51) International Patent Classification[7]: G06F 17/00, 19/00, G01N 27/447, C12Q 1/68

(21) International Application Number: PCT/GB01/03286

(22) International Filing Date: 20 July 2001 (20.07.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0019499.3 8 August 2000 (08.08.2000) GB

(71) Applicant *(for all designated States except US)*: **DIAMOND OPTICAL TECHNOLOGIES LIMITED** [GB/GB]; 6 St. Andrew Street, London EC4A 3LX (GB).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **SIDERIS, Dimitrios** [GR/GB]; 38 Solar Court, Etchingham Park Road, London N3 2DZ (GB).

(74) Agents: **MAGGS, Michael, Norman** et al.; Kilburn & Strode, 20 Red Lion Street, London WC1R 4PJ (US).

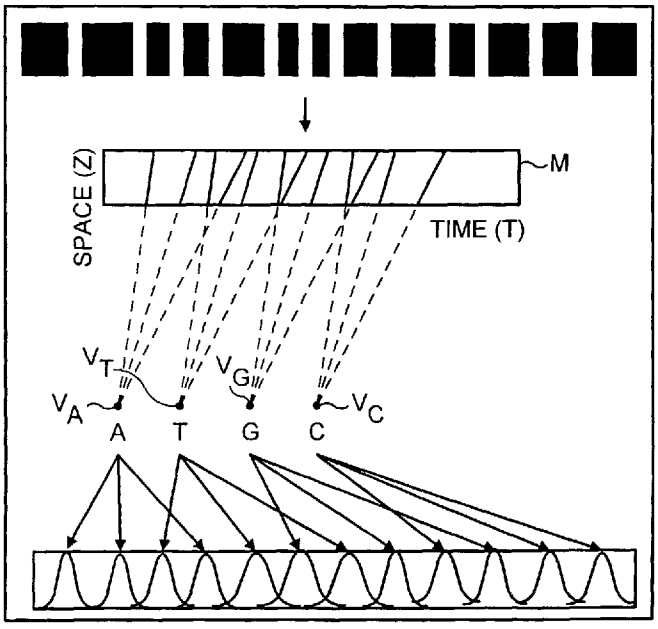
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, 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 patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR CHARACTERISING AND SEQUENCING POLYMERS



(57) Abstract: A system and method of characterising, in particular sequencing, polymeric samples, the system comprising: a space-time map generator for generating a space-time map of points representative of the signal peaks of signals detected at a plurality of spaced positions as passed by the migrating components of a plurality of separately-provided sample plugs; and a vertex finder for identifying vertices from the space-time map, with a single vertex being identified for the components of each separately-provided sample plug and the velocities of the sample components being determinable from the points in the space-time map.

WO 02/013122 A3

(88) Date of publication of the international search report:
8 August 2002

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.