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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 November 2004 (18.11.2004)

PCT

(10) International Publication Number
WO 2004/099777 A3

(51) International Patent Classification[7]: G01N 33/543

(21) International Application Number:
PCT/US2004/012359

(22) International Filing Date: 22 April 2004 (22.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/428,295 2 May 2003 (02.05.2003) US

(71) Applicant *(for all designated States except US)*: **BECTON, DICKINSON AND COMPANY** [US/US]; 1 Becton Drive, Franklin Lakes, NJ 07417-1880 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **ALARCON, Javier** [EC/US]; 1500 Duke University Road, Apt. B1B, Durham, NC 27701 (US). **HSIEH, Helen, V.** [US/US]; 3602 Abercromby Drive, Durham, NC 27709 (US). **ROWLEY, Jon, A** [US/US]; 220 Finley Forest Drive, Chapel Hill, NC 27517 (US). **JACOBSON, Ross, W.** [US/US]; 4515 Whitfield Road, Durham, NC 27707 (US). **PITNER, J., Bruce** [US/US]; 2903 Quincemoor Road, Durham, NC 27712 (US). **SHERMAN, Douglas, B.** [US/US]; 7 Lansgate Court, Durham, NC 27713 (US).

(74) Agent: **WAGNER, Jaconda**; Becton, Dickinson and Company, 1 Becton Drive, Franklin Lakes, NJ 07417-1880 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, 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, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

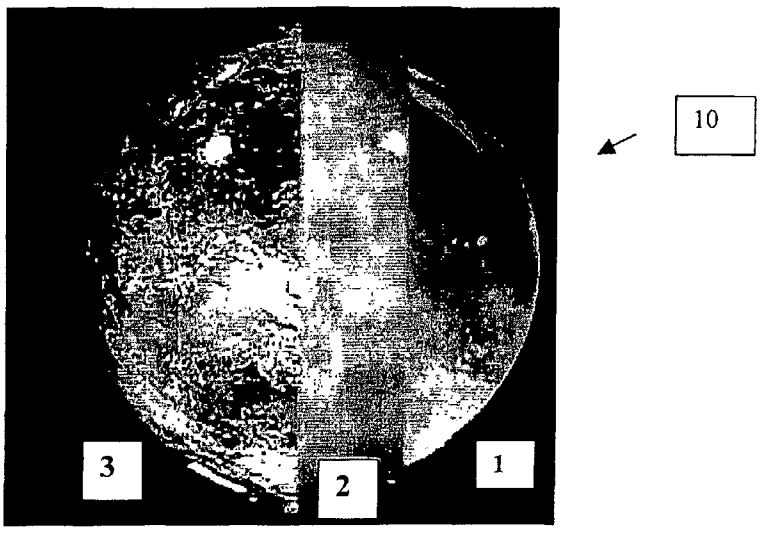
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
11 August 2005

[Continued on next page]

(54) Title: MULTICOATED OR MULTILAYER ENTRAPMENT MATRIX FOR PROTEIN BIOSENSOR



(57) Abstract: Multicoated or multilayer matrices capable of embedding, encapsulating or entrapping binding proteins, optionally with a reporter group attached, specific for analytes of interest, in particular sugars, and methods of making and using such matrices.

WO 2004/099777 A3

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.