

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number
WO 2005/089409 A2

(51) International Patent Classification: **Not classified**

(21) International Application Number:
PCT/US2005/008833

(22) International Filing Date: 17 March 2005 (17.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/554,313 17 March 2004 (17.03.2004) US

(71) Applicant (for all designated States except US): **UNIVERSITY OF HAWAII** [US/US]; Ms. Lisa Matsunaga, Office of Technology Transfer and Economic Development, 2800 Woodlawn Drive, Suite 280, Honolulu, HI 96822 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SU, Wei, Wen** [US/US]; 300 Wai Nani Way, Apt. 1015, Honolulu, HI 96815 (US).

(74) Agents: **FEDRICK, Michael, F.** et al.; **SHELDON & MAK PC**, 225 South Lake Avenue, 9th Floor, Pasadena, CA 91101 (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, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

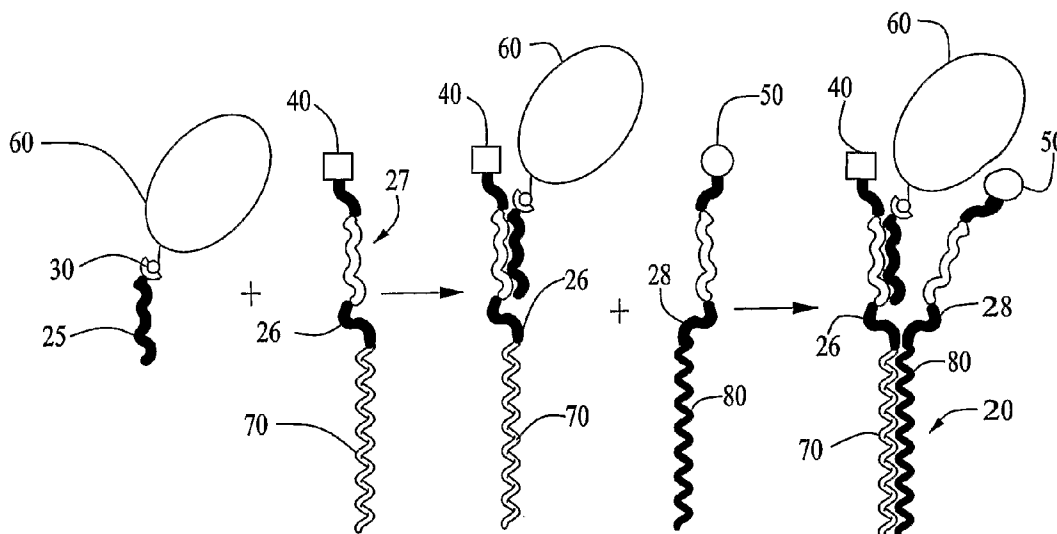
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, 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:

— without international search report and to be republished upon receipt of that report

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.

(54) Title: **SENSOR CONSTRUCTS AND DETECTION METHODS**



(57) Abstract: Sensor constructs 10 for detecting the presence of an analyte 60 in a sample comprise a molecular scaffold 20, a pair of labels 40, 50 which interact via Förster resonance energy transfer, and at least one molecular recognition domain 30. When the analyte 60 is bound by the molecular recognition domain 30, the Förster resonance energy interaction between the pair of labels 40, 50 is disrupted, resulting in a changed optical signal.

WO 2005/089409 A2