

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
2 February 2006 (02.02.2006)

PCT

(10) International Publication Number
WO 2006/011853 A1

(51) International Patent Classification⁷: **C07F 15/00**,
17/00, G01N 27/26

(21) International Application Number:
PCT/SG2005/000238

(22) International Filing Date: 18 July 2005 (18.07.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/900,599 28 July 2004 (28.07.2004) US

(71) Applicant (for all designated States except US):
**AGENCY FOR SCIENCE, TECHNOLOGY AND
RESEARCH** [SG/SG]; 20 Biopolis Way, #07-01 Centros,
Singapore 138668 (SG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **XIE, Hong**
[CN/SG]; Block 212 Choa Chu Kang Central, #11-126,
Singapore 680212 (SG). **GAO, Zhiqiang** [SG/SG]; Block
685B Choa Chu Kang Crescent, #14-298, Singapore
682685 (SG).

(74) Agent: **VIERING, JENTSCHURA & PARTNER**; P.O.
Box 1088, Rochor Post Office, Rochor Road, Singapore
911833 (SG).

(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, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
MD, MG, MK, MN, MW, MX, MZ, NA, NG, 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, LV, 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

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

(54) Title: MEDIATOR-MODIFIED REDOX BIOMOLECULES FOR USE IN ELECTROCHEMICAL DETERMINATION OF ANALYTE

(57) Abstract: Compositions and methods for electrochemical detection of an analyte comprising a transition metal compound (I) wherein M is a metallic element that can form a coordinate bond to nitrogen; R and R' are coordinated to M at their nitrogen atoms; L is a linking ligand; Z is chlorine or bromine; m can be from 1 to 6 and X is an anion, or combination of anions, that balances the charge m. Also provided are electrochemical tags and methods of detection.

WO 2006/011853 A1