



- (51) International Patent Classification: Not classified
- (21) International Application Number: PCT/IL2011/000888
- (22) International Filing Date: 16 November 2011 (16.11.2011)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/414,003 16 November 2010 (16.11.2010) US
61/531,628 7 September 2011 (07.09.2011) US
- (71) Applicant (for all designated States except US): **YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW UNIVERSITY OF JERUSALEM LTD.** [IL/IL]; Hi-Tech Park, Edmond J. Safra Campus, Givat Ram, P.O.Box 39135, 91390 Jerusalem (IL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **GNAYEN, Hani** [IL/IL]; P.O. Box 1688, 30100 Baka-El-Gharbia (IL). **SASSON, Yoel** [IL/IL]; 30 HaPalmach St., 92542 Jerusalem (IL). **SHENAWI-KHALIL, Sanaa** [IL/IL]; 48 Kanai HaGalil St., 93266 Jerusalem (IL).
- (74) Agents: **PYERNIK RUTMAN** et al.; Beit Etzion, 91 Herzl St., P.O.Box 10012, 84106 Beer-Sheva (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

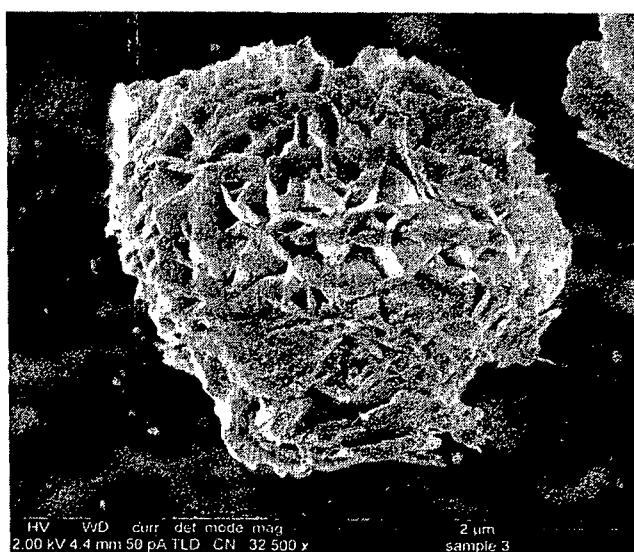
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, 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 (Rule 48.2(g))

(54) Title: BISMUTH OXYHALIDE COMPOUNDS USEFUL AS PHOTOCATALYSTS

Fig.
9C



(57) Abstract: Mixed chloride-bromide bismuth oxyhalide compounds, with the molar ratio chloride:bromide being equal to or greater than 1:1, in the form of microspheres exhibiting flower-like surface morphology, are disclosed. Processes for preparing the compounds, formulations of the compounds and a method for purifying water using said compounds are also disclosed.