

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 January 2009 (22.01.2009)

PCT

(10) International Publication Number
WO 2009/012278 A1

(51) International Patent Classification:
C23C 4/12 (2006.01) **B22F 3/00** (2006.01)

(74) Agent: **MIKESELL, Peter, J.**; Hiscock & Barclay, LLP,
2000 HSBC Plaza, 100 Chestnut Street, Rochester, NY
14604 (US).

(21) International Application Number:
PCT/US2008/070109

(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, 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, PG, PH, PL, PT,
RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM,
ZW.

(22) International Filing Date: 16 July 2008 (16.07.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/950,264 17 July 2007 (17.07.2007) US

(71) Applicant (for all designated States except US):
WILLIAMS ADVANCED MATERIALS, INC.
[US/US]; 2978 Main Street, Buffalo, NY 14214 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ACKER, Robert**
[US/US]; 151 Beach Road, Poughquag, NY 12570 (US).
GANGULY, Adrish [IN/US]; 16 States Street, Unit
#20, Danbury, CT 06810 (US). **WILLSON, Matthew, T.**
[US/US]; 1 Bluestone Lane, New Milford, CT 06776 (US).

(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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL,

[Continued on next page]

(54) Title: PROCESS FOR THE REFURBISHING OF A SPUTTERING TARGET

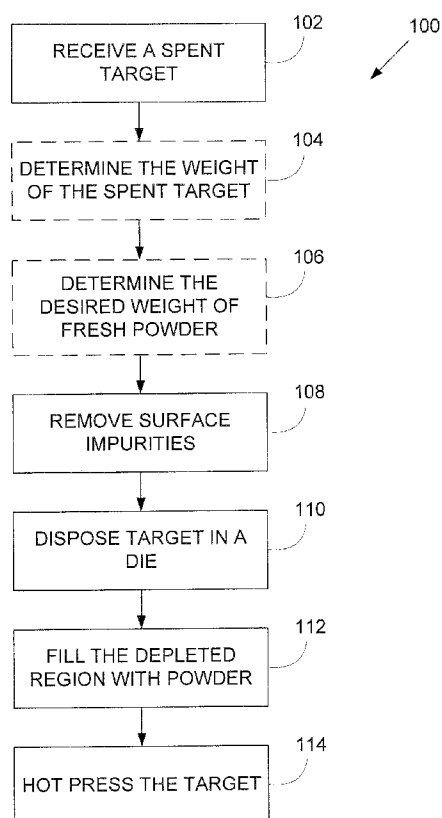


FIG. 1

(57) Abstract: Disclosed in this specification is a process for refurbishing a spent sputtering target. The process includes the step of applying sufficient heat and axial force to the filled sputtering target to hot press the filled sputtering target such that the powdered metal fuses with the un-sputtered metal, producing a refurbished target. The process may be used to refurbish precious metal targets, such as ruthenium targets.

WO 2009/012278 A1



NO, 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*
- *with amended claims*