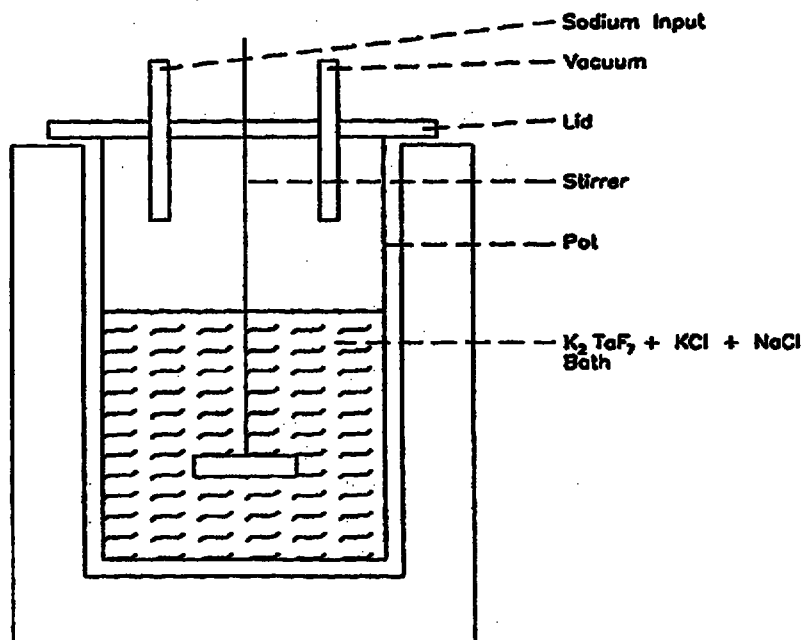




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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| (21) International Application Number: <b>PCT/US99/11691</b><br>(22) International Filing Date: <b>26 May 1999 (26.05.99)</b><br>(30) Priority Data:<br>60/086,868      27 May 1998 (27.05.98)      US<br>09/316,777      21 May 1999 (21.05.99)      US<br>(71) Applicant (for all designated States except US): <b>THE ALTA GROUP, INC. [US/US]; 195 Hartzell Road, Fombell, PA 16123-9518 (US).</b><br>(72) Inventors; and<br>(75) Inventors/Applicants (for US only): <b>ROSENBERG, Harry [US/US]; 9371 Almar Place, Pittsburgh, PA 15237 (US). OZTURK, Bahri [US/US]; 115 Woodbine Drive, Cranberry Township, PA 16066 (US). WANG, Guangxin [CN/US]; 515 Churchill Court, Cranberry Township, PA 16066 (US). LARUE, Wesley [US/US]; 801 Pinchot Street, Ellwood City, PA 16117 (US).</b><br>(74) Agent: <b>GIOIA, Vincent, G.; Christie, Parker &amp; Hale, LLP, P.O. Box 7068, Pasadena, CA 91109-7068 (US).</b> |  | (81) Designated States: <b>AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</b><br><br><b>Published</b><br><i>With international search report.</i><br><i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> |                                                                        |

(54) Title: TANTALUM SPUTTERING TARGET AND METHOD OF MANUFACTURE



## (57) Abstract

Described is a method for producing high purity tantalum, the high purity tantalum so produced and sputtering targets of high purity tantalum. The method involves purifying starting materials followed by subsequent refining into high purity tantalum.