

(12) International Application Status Report

Received at International Bureau: 12 September 2002 (12.09.2002)

Information valid as of: (..)

Report generated on: 30 July 2021 (30.07.2021)

(10) Publication number:

WO2003/018185

(43) Publication date:

06 March 2003 (06.03.2003)

(26) Publication language:

French (FR)

(21) Application Number:

PCT/IB2002/003551

(22) Filing Date:

02 September 2002 (02.09.2002)

(25) Filing language:

French (FR)

(31) Priority number(s):

01 120 974.9 (EP)

(31) Priority date(s):

31 August 2001 (31.08.2001)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

H01J 37/32 (2006.01)

(71) Applicant(s):

APIT CORP. SA [CH/CH]; 10, Avenue de France CH-1950 Sion (CH) *(for all designated states except US)*

KOULIK, Pavel [BE/FR]; 29, rue du Gloeckelsberg F-67113 Blaesheim (FR) *(for US only)*

PETROV, Evguenii [RU/FR]; 14, Domaine de l'Ile F-67400 Illkirch-Graffenstaden (FR) *(for US only)*

IVANOV, Mark [RU/FR]; 22, Domaine de l'Ile F-67400 Illkirch-Graffenstaden (FR) *(for US only)*

(72) Inventor(s):

KOULIK, Pavel; 29, rue du Gloeckelsberg F-67113 Blaesheim (FR)

PETROV, Evguenii; 14, Domaine de l'Ile F-67400 Illkirch-Graffenstaden (FR)

IVANOV, Mark; 22, Domaine de l'Ile F-67400 Illkirch-Graffenstaden (FR)

(74) Agent(s):

REUTELER, Raymond, Werner; William Blanc & Cie Conseils en Propriété Industrielle SA Avenue du Pailly 25 CH-1220 Les Avanchets (CH)

(54) Title (EN): METHOD OF PRODUCING POWDER WITH COMPOSITE GRAINS AND THE DEVICE FOR CARRYING OUT SAID METHOD

(54) Title (FR): PROCEDE DE FABRICATION DE POUDRE DE GRAINS COMPOSITES ET DISPOSITIF POUR LA MISE EN OEUVRE DU PROCEDE

(57) Abstract:

(EN): The invention relates to a method of producing powder formed of composite grains comprising a kernel and one or more surface layers. The inventive method comprises the following steps: mixing the grain kernels with a plasmochemical treatment gas; making said kernel/treatment gas mixture flow through a main plasma reactor; and generating a uniform plasma essentially at atmospheric pressure in a treatment region of the main reactor in order to create a plasmochemical reaction between the treatment gas and the surfaces of the kernels so that surface layers form on said surfaces while the mixture flows through the reactor.

(FR): Procédé de fabrication de poudre formée de grains composites comprenant un noyau et une ou plusieurs couches superficielles, comportant les étapes: de mélange des noyaux de grains avec un gaz de traitement plasmochimique, de passage à travers un réacteur de plasma principal d'un flux dudit mélange de noyaux et de gaz de traitement, et de génération d'un plasma essentiellement à pression atmosphérique uniforme dans une zone de traitement du réacteur principal afin de créer une réaction plasmochimique entre le gaz de traitement et les surfaces des noyaux pour la formation de couches superficielles sur celles-ci pendant que le flux dudit mélange traverse le réacteur.

International search report:

Received at International Bureau: 22 April 2003 (22.04.2003) [EP]

International Report on Patentability (IPRP) Chapter II of the PCT:

(81) Designated States:

AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, 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, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW

European Patent Office (EPO) : AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR

African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

African Regional Intellectual Property Organization (ARIPO) : GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW

Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, MD, RU, TJ, TM