



(51) International Patent Classification:

B04B 1/02 (2006.01) **B04B 7/08** (2006.01)
B04B 11/05 (2006.01)

(21) International Application Number:

PCT/US2013/024530

(22) International Filing Date:

2 February 2013 (02.02.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/594,077 2 February 2012 (02.02.2012) US

(71) Applicants: **ATMI PACKAGING, INC.** [US/US]; 10851

Louisiana Avenue South, Bloomington, MN 55438 (US).

ARTELIS, S.A. [BE/BE]; Rue de Ransbeek, 310, B-Brus-

sels1120 (BE).

(72) Inventors: **CASTILLO GONZALEZ, Jose, Antonio;**

Rue De La Buanderie 18 B3.1, B-1000 Brussels (BE).

DRUGMAND, Jean-Christophe; Agora 5 Bte 214, B-

1348 Louvain-la-neuve (BE). **PETHE, Vishwas;** 1668
Philipp Way, Shakopee, MN 55379 (US). **TERENTIEV,**
Alexandre; 4688 Spring Creek Drive, Lexington, KY
40515 (US).

(74) Agents: **KING, J., Ralph** et al.; King & Schickli, PLLC,
247 North Broadway, Lexington, KY 40507 (US).

(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, BN, 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, PA, 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,

[Continued on next page]

(54) Title: CENTRIFUGATION SYSTEM AND RELATED METHOD

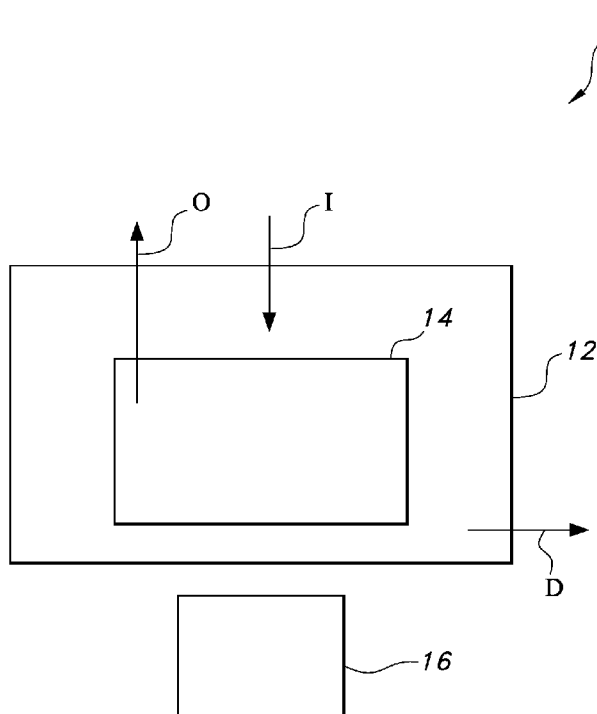


FIG. 1

(57) Abstract: In one aspect, a disposable centrifuge in-
cludes a container including an interior compartment for re-
ceiving the liquid and solids. The container is capable of ro-
tating to urge the solids toward the periphery of the interior
compartment. A fixed extraction conduit may be provided
for extracting at least a portion of the solids from adjacent
the periphery of the interior compartment of the container. A
motive device may also be provided for forming a non-con-
tact coupling with the container, which may rotate and/or
levitate the container. A relatively low, continuous flow rate
(about 250 ml/min to about 500 ml/min) may also be uti-
lized. Related methods are also disclosed.



GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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))*