

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
4 November 2004 (04.11.2004)

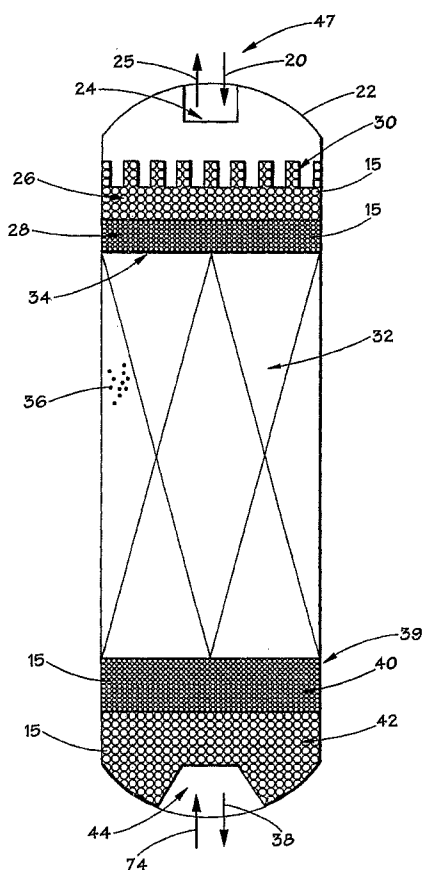
PCT

(10) International Publication Number  
**WO 2004/094039 A2**

- (51) International Patent Classification<sup>7</sup>: **B01D 46/42**, (72) Inventor; and  
B01J 39/20 (75) Inventor/Applicant (for US only): **GLOVER, John, N.**  
[US/US]; 16418 Graven Hill, Spring, TX 77379 (US).
- (21) International Application Number: PCT/US2004/006366 (74) Agent: **BROWN, Kimberly, L.**; Bracewell & Patterson,  
L.L.P., P.O. Box 61389, Houston, TX 77208-1389 (US).
- (22) International Filing Date: 2 March 2004 (02.03.2004) (81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, 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, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 10/396,851 25 March 2003 (25.03.2003) US
- (71) Applicant (for all designated States except US): **CRYSTAPHASE INTERNATIONAL, INC.** [US/US];  
16825 Northchase Drive, Suite 660, Houston, TX  
77060-6029 (US). (84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: FILTRATION, FLOW DISTRIBUTION AND CATALYTIC METHOD FOR PROCESS STREAMS



(57) Abstract: A method for removing contaminants from a process stream that includes the use of reticulated material to filter the process stream. The reticulated material also facilitate process stream flow distribution in process units. The reticulated material can be packed with a void space between a substantial number of the reticulated material that can be varied to enhance filtration and flow distribution. The method of filtering also provides a method of removing contaminants leaving process equipment. The methods can be used on a variety of process streams and process equipment. The reticulated material can include ceramics, metallic materials, and chemical vapor deposition elements. The reticulated material can be of various shapes and sizes, and can also be catalytically active.



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, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

- *without international search report and to be republished upon receipt of that report*