

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
5 December 2002 (05.12.2002)

PCT

(10) International Publication Number
WO 02/096808 A1

(51) International Patent Classification⁷: **C02F 1/24**,
1/52, 1/78, 9/00, 9/04

(21) International Application Number: PCT/AU02/00636

(22) International Filing Date: 22 May 2002 (22.05.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PR 5364 31 May 2001 (31.05.2001) AU

(71) Applicants and

(72) Inventors: **WOODLEY, Paul** [GB/AU]; 51 Harrington Street, Kambah, ACT 2902 (AU). **FOONG, Weng, Chuen** [MY/TH]; AWA-Envirotech Co., Ltd., 160/149, 12th Floor ITF-Silom Palace, Silom Road, Bangrak, Bangkok 10500 (TH).

(74) Agent: **HAZELWOOD, Ken**; Ingelara Station, Michelago, P.O. Box 333, Calwell, ACT 2905 (AU).

(81) Designated States (*national*): 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.

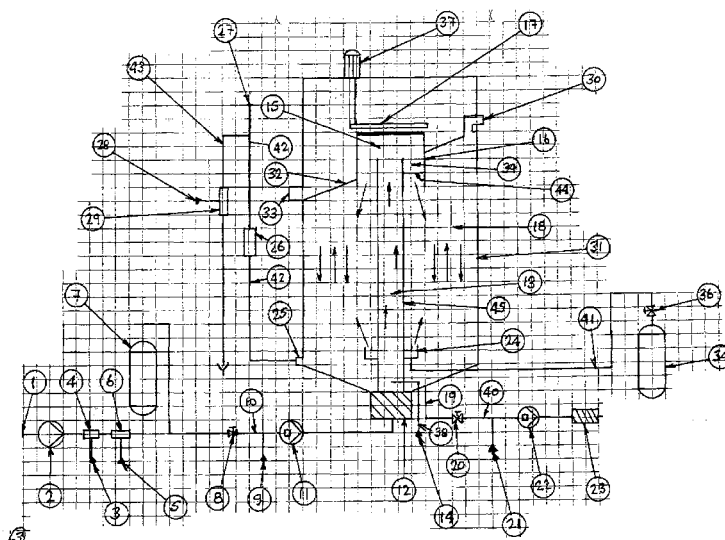
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

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.

(54) Title: METHOD FOR TREATMENT OF WASTEWATER



(57) Abstract: Generally aerobic and anaerobic wastewater treatment plants require substantial areas of land for the effective treatment of liquid waste streams to achieve very low levels of Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) reduction. These plants are also very expensive to construct and operate. The size and cost of wastewater treatment plants can be reduced by the use of chemical treatment systems, however these are usually expensive to operate and do not achieve the low levels of BOD and COD required in satisfying regulating authorities globally. A system comprising pH control, settling, homogenisation under pressure and a combination of flocculation, flotation and treatment with concentrated ozone gas has the ability to achieve very low BOD and COD discharge levels as well as being cost-effective solution with regards to construction and operation.



WO 02/096808 A1