

Title (en)
PROCESS AND DEVICE FOR BIOLOGICALLY PURIFYING SUBSTANCES.

Title (de)
VERFAHREN UND VORRICHTUNG ZUR BIOLOGISCHEN STOFFFREINIGUNG.

Title (fr)
PROCEDE ET DISPOSITIF POUR LA PURIFICATION BIOLOGIQUE DE MATIERES.

Publication
EP 0515627 A1 19921202 (DE)

Application
EP 92901046 A 19911223

Priority
DE 4041222 A 19901221

Abstract (en)
[origin: DE4142890A1] During the process, the materials are homogenised separately or together to a particle size of max. 1 micron opt. with water addn. The resulting homogeneous product is passed through one or more filter materials and opt. more materials are added. A biocatalyst (Bioclean) is added in a vol. ratio of 1:250-8000 w.r.t. waste waters, 1:300-1000 w.r.t. fats and 1:200-1000 w.r.t. oils. The filter material is pref. gravel, esp. a high grade basalt granulate. Also claimed is the appts. for carrying out the process comprising a homogeniser (H), a reaction vessel (F) contg. one or more filter materials, and measuring equipment (M). These components (H,F,M) are connected together so that the homogenisate can flow one or more times through the reaction vessel and the purity of the resulting homogenisate can be determined. ADVANTAGE - Process allows treatment of a wide range of materials such as grey water, faecal water, industrial waste water, clarification sludge, fats, oils and oil-contaminated water and soil. The waste water cleaning time is halved, oils and fats need not be separated, no residues are formed, energy consumption is low, odours are not produced and high purity water is obt'd.

Abstract (fr)
La présente invention se rapporte à un procédé pour la purification biologique, en particulier pour la dégradation de matières, telles qu'eaux usées, graisses et huiles, caractérisé en ce que les matières sont homogénéisées séparément ou ensemble, le cas échéant avec addition d'eau, en des particules d'une taille de 1 µm ou moins, et en ce que le mélange homogène obtenu est passé à travers une ou plusieurs matières filtrantes et, le cas échéant, rajouté aux matières susmentionnées. L'invention se rapporte en outre à un dispositif pour la réalisation de ce procédé.

IPC 1-7
C02F 3/06; C02F 3/10; C02F 3/12; C02F 3/34

IPC 8 full level
C02F 3/06 (2006.01); **C02F 3/10** (2006.01); **C02F 3/12** (2006.01); **C02F 3/34** (2006.01); **C02F 9/00** (2006.01)

CPC (source: EP)
C02F 3/06 (2013.01); **C02F 3/10** (2013.01); **C02F 3/1242** (2013.01); **C02F 3/1284** (2013.01); **C02F 3/34** (2013.01); **C02F 3/343** (2013.01); **Y02W 10/10** (2015.05)

Citation (search report)
See references of WO 9211212A1

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE

DOCDB simple family (publication)
DE 4142890 A1 19920625; DE 4142890 C2 19960321; AU 9091591 A 19920722; CA 2074804 A1 19920622; EP 0515627 A1 19921202; FI 923673 A0 19920817; FI 923673 A 19920817; JP H05503251 A 19930603; WO 9211212 A1 19920709

DOCDB simple family (application)
DE 4142890 A 19911223; AU 9091591 A 19911223; CA 2074804 A 19911223; EP 9102500 W 19911223; EP 92901046 A 19911223; FI 923673 A 19920817; JP 50117391 A 19911223