

Title (en)

METHOD FOR PREPARING NITROGENOUS FERTILIZER AND SOIL CONDITIONER FROM LIQUID MANURE AND/OR MANURE

Title (de)

VERFAHREN ZUR HERSTELLUNG VON STICKSTOFFDÜNGER UND BODENVERBESSERTUNGSMITTEL AUS FLÜSSIGGÜLLE UND/ODER GÜLLE

Title (fr)

PROCÉDÉ DE PRÉPARATION D'ENGRAIS ET D'AMENDEMENT AZOTÉS À PARTIR DE LISIER ET/OU DE FUMIER

Publication

EP 3947322 A1 20220209 (EN)

Application

EP 20782352 A 20200403

Priority

- FI 20195277 A 20190405
- FI 2020050219 W 20200403

Abstract (en)

[origin: WO2020201636A1] A method for preparing nitrogenous fertilizer and soil conditioner from liquid manure and/or manure. The method comprises the following steps: - separating liquid manure and/or manure into a solid fraction and a liquid fraction, - subjecting the liquid fraction to ammonia stripping, thereby obtaining a liquid fraction with a low nitrogen content and a gas phase containing ammonia, - performing nitrogen recovery from the gas phase into a liquid solution containing acid, thereby obtaining an ammonium salt solution (ammonium nitrogen), - treating the solid fraction with pyrolysis, wherein charcoal, pyrolysis liquid and pyrolysis gas are formed, - charging the ammonium salt solution obtained from the nitrogen recovery step into the charcoal formed in the pyrolysis process, whereby nitrogenous fertilizer and soil conditioner is obtained as the end product.

IPC 8 full level

C05F 3/00 (2006.01); **A01C 3/00** (2006.01); **C01C 1/02** (2006.01); **C02F 1/20** (2006.01); **C02F 1/58** (2006.01); **C05C 3/00** (2006.01); **C05G 3/80** (2020.01); **C10B 53/02** (2006.01)

CPC (source: EP FI)

A01C 3/00 (2013.01 - FI); **C01C 1/02** (2013.01 - FI); **C01C 1/24** (2013.01 - EP); **C02F 1/20** (2013.01 - FI); **C02F 1/586** (2013.01 - FI); **C02F 9/00** (2013.01 - EP); **C02F 11/10** (2013.01 - FI); **C05C 3/00** (2013.01 - EP FI); **C05F 3/00** (2013.01 - EP FI); **C05F 17/10** (2020.01 - EP); **C05F 17/15** (2020.01 - EP); **C05G 3/80** (2020.02 - EP FI); **C05G 5/40** (2020.02 - EP); **C10B 53/02** (2013.01 - FI); **C02F 1/20** (2013.01 - EP); **C02F 3/02** (2013.01 - EP); **C02F 11/10** (2013.01 - EP); **C02F 2101/16** (2013.01 - EP); **C02F 2103/20** (2013.01 - EP); **C10B 53/00** (2013.01 - EP); **Y02A 40/20** (2017.12 - EP); **Y02E 50/10** (2013.01 - EP); **Y02P 20/145** (2015.11 - EP); **Y02W 10/10** (2015.05 - EP); **Y02W 30/40** (2015.05 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2020201636 A1 20201008; EP 3947322 A1 20220209; EP 3947322 A4 20221228; FI 128744 B 20201130; FI 20195277 A1 20201006

DOCDB simple family (application)

FI 2020050219 W 20200403; EP 20782352 A 20200403; FI 20195277 A 20190405