

Title (en)  
METHOD OF PROTECTION OF GROUND WATERS

Title (de)  
VERFAHREN ZUM GRUNDWASSERSCHUTZ

Title (fr)  
PROCÉDÉE DE PROTECTION D'EAU

Publication  
**EP 3031986 A1 20160615 (EN)**

Application  
**EP 15164291 A 20150420**

Previously filed application  
41052814 20141212 PL

Priority  
PL 41052814 A 20141212

Abstract (en)  
A method of preventing infiltration of excavation pollutants to ground waters characterized by a 50 cm thick layer of coal gangue, sprinkled with 10% suspension of ash, which was obtained through bituminous coal combustion, or preferably - brown coal - 5 times over 10 days, in the amount of 0.3 m<sup>3</sup> of suspension per 1 m<sup>2</sup> of created surface, which is compacted with a road roller after 50 days and then covered with at least 50cm thick layer of coal gangue. The excavation is then filled with coal gangue up to 2m below the planned surface level, while the upper 2-meter thick later is filled with a mixture of soil from landfill cover and post-fermenting sludge from agricultural biogas plant in the weight ratio of 9:1.

IPC 8 full level  
**E02D 31/00** (2006.01)

CPC (source: EP)  
**E02D 31/006** (2013.01)

Citation (applicant)  

- PL 376141 A1 20070122 - INST CHEMII NIEORGANICZNEJ [PL], et al
- WO 9726416 A1 19970724 - REVING V A V S R O [SK], et al
- US 5374139 A 19941220 - KUEGLER JOST-ULRICH [DE]
- DE 3466654 D1 19871112 - STORK FRIESLAND BV [NL]

Citation (search report)  

- [A] EP 0404999 A1 19910102 - KUEGLER JOST ULRICH [DE]
- [AD] WO 9726416 A1 19970724 - REVING V A V S R O [SK], et al

Cited by  
CN111066406A; CN109264863A; CN109438116A; CN111944533A

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)  
**EP 3031986 A1 20160615**; PL 225616 B1 20170428; PL 410528 A1 20160620

DOCDB simple family (application)  
**EP 15164291 A 20150420**; PL 41052814 A 20141212