

Title (en)

REACTION SITES FOR MICROORGANISMS USED TO BIODEGRADE CONTAMINANTS AND METHODS OF USE

Title (de)

REAKTIONSSTELLEN FÜR MIKROORGANISMEN, VERWENDBAR ZUR BIODEGRADATION VON KONTAMINANTEN SOWIE VERWENDUNGSVERFAHREN

Title (fr)

SITE DE REACTION DESTINE A DES MICROORGANISMES UTILISES POUR BIODEGRADER DES CONTAMINANTS, PROCEDE D'UTILISATION ASSOCIE

Publication

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Application

EP 98922229 A 19980512

Priority

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- US 4688797 P 19970513
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Abstract (en)

[origin: WO9851786A1] The present invention relates to a novel reaction site with selected microorganisms capable of biodegrading organic or inorganic contaminants. Contaminants are present in soils (solids), liquids or gases, wherein said contaminants include Federal Priority Pollutants, highly volatile organic compounds (VOCs), recalcitrant organic contaminants or inorganic contaminants such as ammonia or sulfides. The invention particularly relates to biodegradation of organic contaminants by microorganisms from the groups fungus, Nocardioforms/Actinomycetes and Pseudomonadaceae, either alone or in combination, which biodegrade the contamination in either the solid/soil, gas/vapor or liquid/water phases; and the transformation of inorganic contaminants, such as ammonia by Nitrosomonas spp. and Nitrobacter spp. to nitrate with optional denitrification, and hydrogen sulfide to elemental sulfur by Beggiatoa spp. and/or Thiosphera pantotropha. Porous media and cord media are used to construct the reaction sites.

IPC 1-7

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CPC (source: EP US)

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Citation (search report)

- [X] US 5423988 A 19950613 - YAMASAKI KAZUYUKI [JP], et al
- [XA] EP 0286630 A1 19881012 - SOLVAY EBENSEER [AT]
- [X] US 5602065 A 19970211 - HIGA TERUO [JP]
- [X] FR 2710073 A1 19950324 - KARAGUEUZOGLOU PATRICE [FR]
- [X] EP 0465131 A2 19920108 - EARTHNIICS CORP [JP]
- [X] WO 9816479 A1 19980423 - DOW CHEMICAL CO [US], et al
- See references of WO 9851786A1

Cited by

WO2016024189A1; WO2015181698A2

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