

Title (en)

BIOPRODUCTION OF AROMATIC CHEMICALS FROM LIGNIN-DERIVED COMPOUNDS

Title (de)

BIOPRODUKTION AROMATISCHER CHEMIKALIEN AUS VON LIGNIN ABGELEITETEN VERBINDUNGEN

Title (fr)

PRODUCTION BIOLOGIQUE DE PRODUITS CHIMIQUES AROMATIQUES À PARTIR DE COMPOSÉS DÉRIVÉS DE LIGNINE

Publication

**EP 2616481 A4 20140402 (EN)**

Application

**EP 11825655 A 20110829**

Priority

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- US 40340010 P 20100915
- US 2011049619 W 20110829

Abstract (en)

[origin: WO2012036884A2] The teachings provided herein are generally directed to a method of converting lignin-derived compounds to valuable aromatic chemicals using an enzymatic, bioconversion process. The teachings provide a selection of (i) host cells that are tolerant to the toxic compounds present in lignin fractions; (ii) polypeptides that can be used as enzymes in the bioconversion of the lignin fractions to the aromatic chemical products; (iii) polynucleotides that can be used to transform the host cells to express the selection of polypeptides as enzymes in the bioconversion of the lignin fractions; and (iv) the transformants that express the enzymes.

IPC 8 full level

**C07K 14/21** (2006.01); **C12N 15/54** (2006.01); **C12N 15/63** (2006.01); **C12P 1/04** (2006.01); **C12P 7/22** (2006.01); **C12R 1/38** (2006.01)

CPC (source: CN EP)

**C12N 9/1088** (2013.01 - CN EP); **C12P 7/22** (2013.01 - CN EP); **C12P 7/28** (2013.01 - CN EP); **C12Y 205/01018** (2013.01 - CN EP)

Citation (search report)

- [A] MASAI ET AL: "Characterization of Sphingomonas paucimobilis SYK-6 genes involved in degradation of lignin-related compounds.", JOURNAL OF INDUSTRIAL MICROBIOLOGY & BIOTECHNOLOGY, vol. 23, no. 4-5, 1 October 1999 (1999-10-01), pages 364 - 373, XP055101268, ISSN: 1367-5435, DOI: 10.1038/sj/jim/2900747
- [A] E. MASAI ET AL: "Roles of the Enantioselective Glutathione S-Transferases in Cleavage of -Aryl Ether", JOURNAL OF BACTERIOLOGY, vol. 185, no. 6, 15 March 2003 (2003-03-15), pages 1768 - 1775, XP055101271, ISSN: 0021-9193, DOI: 10.1128/JB.185.6.1768-1775.2003
- See references of WO 2012036884A2

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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