

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 October 2005 (27.10.2005)

PCT

(10) International Publication Number
WO 2005/100569 A2

(51) International Patent Classification⁷: **C12N 15/55**,
9/14, C07K 16/40, C12P 7/18, 17/02, 41/00

(21) International Application Number:
PCT/IB2005/001021

(22) International Filing Date: 18 April 2005 (18.04.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2004/2960 19 April 2004 (19.04.2004) ZA

(71) Applicant (for all designated States except US): **CSIR**
[ZA/ZA]; Scientia, 0002 Pretoria (ZA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BOTES, Adriana**,
Leonora [ZA/ZA]; 34 Ormonde Street, Muckleneuk,
0002 Pretoria (ZA). **LOTTER, Jeanette** [ZA/ZA]; 18 The
Cottages, Thornhill Road, Thornhill Estate, Extension 2,
1644 Modderfontein (ZA). **LABUSCHAGNE, Michel**
[ZA/ZA]; c/o CSIR, Scientia, 0002 PRETORIA (ZA).
MITRA, Robin, Kumar [ZA/ZA]; c/o CSIR, Scientia,
Pretoria 0002 (ZA).

(74) Agent: **KAHN, Craig, Glen**; Adams & Adams, Adams
& Adams Place, 1140 Prospect Street, Hatfield, PO Box
1014, 0001 PRETORIA (ZA).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW.

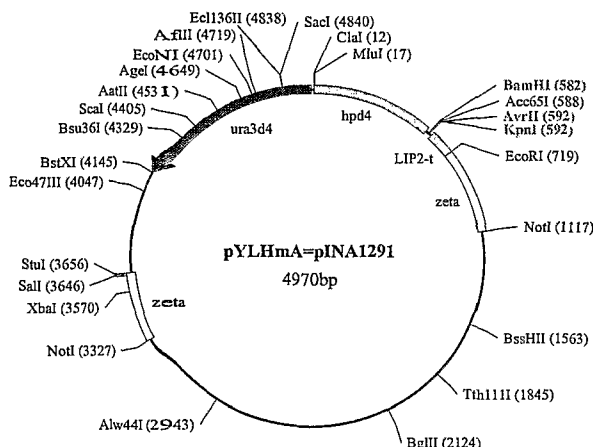
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHODS OF OBTAINING OPTICALLY ACTIVE EPOXIDES AND VICINAL DIOLS FROM STYRENE OXIDES



(57) Abstract: The invention provides yeast strains,
and polypeptides encoded by genes of such yeast
strains, that have enantiospecific styrene epoxide
hydrolase activity. The invention also features
nucleic acid molecules encoding such polypeptides,
vectors containing such nucleic acid molecules, and
cells containing such vectors. Also embraced by the
invention are methods for obtaining optically active
styrene vicinal diols and optically active styrene
epoxides.

WO 2005/100569 A2