

Refereed papers 2011 - 2019

A complete list of all publications from 1985 to 2019 available at <http://www.researcherid.com/rid/B-5410-2013>

MÜLLER, W.J., **SMIT, M.S.**, VAN HEERDEN, E., CAPES, M.D. & DASSARMA, S. 2018. Complex effects of cytochrome P450 monooxygenase on purple membrane and bacterioruberin production in an extremely halophilic archaeon: Genetic, phenotypic, and transcriptomic analyses. *Frontiers in Microbiology* 9: art 2563 **IF = 4.019**

TOLMIE, C., **SMIT, M.S.**, OPPERMAN, D.J. 2019. Native roles of Baeyer–Villiger monooxygenases in the microbial metabolism of natural compounds. *Nat. Prod. Rep.*, 36, 326-353; DOI: 10.1039/C8NP00054A; **IF = 11.406**

TOLMIE, C., SMIT, M.S., OPPERMAN, D.J. 2018. Alternative splicing of the aflatoxin-associated baeyer–villiger monooxygenase from *Aspergillus flavus*: Characterisation of MoxY isoforms. *Toxins* 10: art 521.; **IF = 3.273**

DITHUGOE, C.D., VAN MARWIJK, J., **SMIT, M.S.**, OPPERMAN, D.J. 2019. An Alcohol Dehydrogenase from the Short-Chain Dehydrogenase/Reductase Family of Enzymes for the Lactonization of Hexane-1,6-diol. *ChemBioChem* 20(1), 96-102; DOI: 10.1002/cbic.201800533; **IF = 2.774**

THERON, C.W., LABUSCHAGNÉ, M., ALBERTYN, J., **SMIT, M.S.** 2018. Heterologous coexpression of the benzoate-para-hydroxylase CYP53B1 with different cytochrome P450 reductases in various yeasts. *Microbial Biotechnology* (in press, available online) DOI: 10.1111/1751-7915.13321; **IF = 3.340**

KOCHIUS, S., VAN MARWIJK, J., EBRECHT, A.C., OPPERMAN, D.J., **SMIT, M.S.** 2018. Deconstruction of the CYP153A6 alkane hydroxylase system: Limitations and optimization of in vitro alkane hydroxylation. *Catalysts* 8: 531. DOI:10.3390/catal8110531; **IF = 3.465**

WHITE, B.E., FENNER, C.J. **SMIT, M.S.** HARRISON, S.T.L. 2017. Effect of cell permeability and dehydrogenase expression on octane activation by CYP153A6-based whole cell *Escherichia coli* catalysts. *Microbial Cell Factories* 16:156. DOI: 10.1186/s12934-017-0763-0; **IF = 3.681**

MTHETHWA, K.S., KASSIER, K., ENGEL, J., KARA, S., **SMIT, M.S.**, OPPERMAN D.J. (2017) Fungal BVMOs as alternatives to cyclohexanone monooxygenase. *Enz. Microbial. Technol.* 106:11-17. DOI: 10.1016/j.enzmictec.2017.06.017; **IF = 2.501**

FERRONI, F.M., TOLMIE, C., **SMIT, M.S.**, OPPERMAN, D.J. (2017) Alkyl formate ester synthesis by a fungal Baeyer-Villiger monooxygenase. *ChemBioChem* 18:515-517 DOI: 10.1002/cbic.201600684; **IF = 2.847**

FERRONI, F.M., TOLMIE, C., **SMIT, M.S.**, OPPERMAN, D.J. (2016) Structural and catalytic characterization of a fungal Baeyer-Villiger monooxygenase. *PloS one* 11:e0160186 **IF = 3.234**

RICKLEFS, E., GIRHARD, M., KOSCHORRECK, K., **SMIT, M.S.**, URLACHER, V.B. (2015) Two-step one-pot synthesis of pinosresinol from eugenol in an enzymatic cascade. *ChemCatChem* 7: 1857 - 1864. doi: 10.1002/cctc.201500182 **IF = 4.724**

PENNEC, A., HOLLMANN, F., **SMIT, M.S.**, OPPERMAN, D.J. (2015) One-pot conversion of cycloalkanes to lactones. *ChemCatChem* 7: 236 - 239. doi: 10.1002/cctc.201402835 **IF = 4.724**

PENNEC, A., JACOBS, C.L., OPPERMAN, D.J., **SMIT, M.S.** (2015) Revisiting cytochrome P450 mediated oxyfunctionalization of linear and cyclic alkanes. *Advanced Synthesis and Catalysis* 357: 118 - 130 doi: 10.1002/adsc.201400410 **IF = 5.542**

FERRONI, F.M., **SMIT, M.S.**, OPPERMAN, D.J. (2014) Functional divergence between closely related Baeyer-Villiger monooxygenases from *Aspergillus flavus*. *Journal of Molecular Catalysis B: Enzymatic* 107:47–54. doi: 10.1016/j.molcatb.2014.05.015 **IF = 2.189**

THERON, C.W., LABUSCHAGNÉ, M., GUDIMINCHI, R.K. ALBERTYN, J., **SMIT, M.S.** (2014) A broad-range yeast expression system reveals *Arxula adenivorans* expressing a fungal self-sufficient cytochrome P450 monooxygenase as an excellent whole-cell biocatalyst. FEMS Yeast Research 14: 556-566, DOI: 10.1111/1567-1364.12142 **IF = 2.462**

OLAOFE, O.A., FENNER, C.J., GUDIMINCHI, R.K., **SMIT, M.S.**, HARRISON, S.T.L. (2013) The influence of microbial physiology on biocatalyst activity and efficiency in the terminal hydroxylation of *n*-octane using *Escherichia coli* expressing the alkane hydroxylase, CYP153A6 Microbial Cell Factories 12:8 **IF =3.55**

GIRHARD, M., TIEVES, F., WEBER, E., **SMIT, M.S.**, URLACHER, V.B. (2013) , Cytochrome P450 reductase from *Candida apicola*: versatile redox partner for bacterial P450s, Applied Microbiology and Biotechnology, 97:1625–1635, DOI: 10.1007/s00253-012-4026-z IF(2010) = **3.28**

GUDIMINCHI, R.K., RANDALL, C., OPPERMAN, D.J., OLAOFE, O.A., HARRISON, S.T.L., ALBERTYN, J., **SMIT, M.S.**, (2012) Whole-cell hydroxylation of *n*-octane by *Escherichia coli* strains expressing the CYP153A6 operon Applied Microbiology and Biotechnology 96:1507–1516 DOI: 10.1007/s00253-012-3984-5 **IF(2010) = 3.28**

POHL, C.H., **SMIT, M.S.** ALBERTYN, J. (2011); *Rhodotorula bloemfonteinensis* sp. nov., *Rhodotorula eucalyptica* sp. nov., *Rhodotorula orientis* sp. nov. and *Rhodotorula pini* sp. nov., yeasts isolated from monoterpene-rich environments; International Journal of Systematic and Evolutionary Microbiology, 61; 2320–2327 IF(2011) = **2.268**

GUDIMINCHI, R.K., **SMIT, M.S.** (2011) Identification and characterization of 4-hexylbenzoic acid and 4-nonyloxybenzoic acid as substrates of CYP102A1; Applied Microbiology and Biotechnology, 90, 117-126 IF(2010) = **3.28**