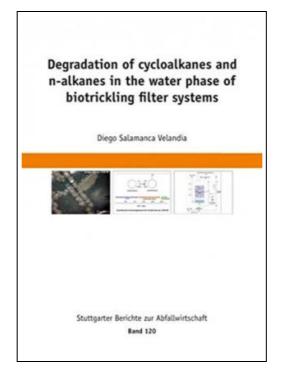
Degradation of cycloalkanes and n-alkanes in the water phase of biotrickling filter systems



Filesize: 8.59 MB

Reviews

Good electronic book and valuable one. It generally is not going to charge an excessive amount of. Its been developed in an remarkably straightforward way and is particularly simply following i finished reading this ebook through which really transformed me, change the way i think.

(Mr. Domenic Eichmann)

DEGRADATION OF CYCLOALKANES AND N-ALKANES IN THE WATER PHASE OF BIOTRICKLING FILTER SYSTEMS



DIV Deutscher Industrieverlag Dez 2015, 2015. Taschenbuch. Book Condition: Neu. 211x157x9 mm. Neuware - Cyclohexane is a highly volatile and colorless cyclic alkane mainly produced by hydrogenation of benzene. Cyclohexane can be widespread in the environment through petroleum and fuel spills. The United States Environmental Protection Agency (US EPA, 1994) reported several environmental issues related to gas emissions containing cyclohexane. Moreover, the toxicity of cyclohexane is related to its octanol-water partition coefficient (log KOW) with a value of 3.44 causing high cell damage. The saturated cyclic structure of cyclohexane makes it more recalcitrant compared to alkanes or monoaromatic compounds. In this study, two strains capable of degrading cyclohexane were isolated from the soil and sludge of the wastewater treatment plant of University of Stuttgart and from a biotrickling filter system. The strains were classified as gram-negative and identified as Acidovorax sp. CHX100 and Chelatococcus sp. CHX1100. Both strains demonstrated the capability to degrade cycloalkanes (C5 - C8), while only the strain CHX1100 was able to use short n-alkanes (C5 - C8) as a sole source of carbon and energy. Growth of Acidovorax sp. CHX100 using cyclohexane was much faster compared to Chelatococcus sp. CHX1100. The strains were able to degrade 99.5 % of 7.5 mM cyclohexane in minimal medium. The results demonstrated the potential applicability of Acidovorax sp. CHX100 and Chelatococcus sp. CHX1100 for the treatment of waste gas containing cycloalkanes (C5 - C8) and other recalcitrant compounds. The research determined the complete pathway for cyclohexane degradation through mutagenesis, gene expression, induction studies, genome analysis, and analysis of metabolites. Transposon mutagenesis of Acidovorax sp. CHX100 revealed a novel cytochrome P450chx monooxygenase which catalyzes the transformation of cyclohexane to cyclohexanol. Primer walking method categorized CYP450chx as cytochrome P450 class I taking into account its



Read Degradation of cycloalkanes and n-alkanes in the water phase of biotrickling filter systems Online Download PDF Degradation of cycloalkanes and n-alkanes in the water phase of biotrickling filter systems

Other Books



World of Reading: Minnie A Walk in the Park: Level Pre-1

Disney Press. Taschenbuch. Book Condition: Neu. Gebraucht - Sehr gut ungelesen, sehr guter Zustand; Rechnung mit MwSt.; unused/unread, very good condition; - Walking dogs can be RUFF! Minnie, Daisy, and Cuckoo-Loca are having a tail-waggin'...

Read Document »



Becoming Barenaked: Leaving a Six Figure Career, Selling All of Our Crap, Pulling the Kids Out of School, and Buying an RV We Hit the Road in Search Our Own American Dream. Redefining What It Meant to Be a Family in America.

 $Create space, United States, 2015. \ Paperback. \ Book \ Condition: New. \ 258 \times 208 \ mm. \ Language: English. \ Brand \ New \ Book \ ****** \ Print on \ Demand \ ******. This isn't porn. \ Everyone always asks and some of our family thinks...$

Read Document »



Bully, the Bullied, and the Not-So Innocent Bystander: From Preschool to High School and Beyond: Breaking the Cycle of Violence and Creating More Deeply Caring Communities

HarperCollins Publishers Inc, United States, 2016. Paperback. Book Condition: New. Reprint. 203 x 135 mm. Language: English. Brand New Book. An international bestseller, Barbara Coloroso s groundbreaking and trusted guide on bullying-including cyberbullying-arms parents...

Read Document »



Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel s System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers

Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****. This historic book may have numerous typos and missing text. Purchasers can download...

Read Document »



Preventing Childhood Eating Problems: A Practical, Positive Approach to Raising Kids Free of Food and Weight

Book Condition: Brand New. Book Condition: Brand New.

Read Document »



Leave It to Me (Ballantine Reader's Circle)

Ballantine Books. PAPERBACK. Book Condition: New. 0449003965 12+ Year Old paperback book-Never Read-may have light shelf or handling wear-has a price sticker or price written inside front or back cover-publishers mark-Good Copy- I ship FAST

Save Document »



History of the Town of Sutton Massachusetts from 1704 to 1876

 $Create space, United States, 2015.\ Paperback.\ Book\ Condition: New.\ annotated\ edition.\ 229\times152\ mm.\ Language: English\ .\ Brand\ New.\ Book\ ****** Print\ on\ Demand\ *****. This\ version\ of\ the\ History\ of\ the\ Town\ of\ Sutton\ Massachusetts$

Save Document »



A Parent s Guide to STEM

U.S. News World Report, United States, 2015. Paperback. Book Condition: New. 214 x 149 mm. Language: English . Brand New Book ***** Print on Demand *****. This lively, colorful guidebook provides everything you need to know

Save Document »



The Preschool Church Church School Lesson for Three to Five Year Olds by Eve Parker 1996 Paperback

Book Condition: Brand New. Book Condition: Brand New.

Save Document »



A Smarter Way to Learn JavaScript: The New Approach That Uses Technology to Cut Your Effort in Half

 $Create space, United States, 2014. \ Paperback. \ Book Condition: New. \ 251 \times 178 \ mm. \ Language: English. \ Brand New Book ***** Print on Demand *****. The ultimate learn-by-doing approach Written for beginners, useful for experienced developers who want to the state of t$

Save Document »