Contents

Abstract		5
Chapter 1	Pathways for the degradation of styrene	11
Chapter 2	Styrene oxide isomerase of <i>Rhodococcus opacus</i> 1CP: A highly stable and considerably active enzyme	27
Chapter 3	Immobilization of an integral membrane protein for biotechnological phenylacetaldehyde production	51
Chapter 4	Styrene oxide isomerase of <i>Sphingopyxis</i> species Kp5.2	71
Chapter 5	Description of <i>Sphingopyxis fribergensis</i> sp. nov a soil bacterium with the ability to degrade styrene and phenylacetic acid	97
Chapter 6	Co-metabolic formation of substituted phenylacetic acids by styrene-degrading bacteria	125
Chapter 7	Production of a recombinant membrane protein for phenylacetic acid synthesis	145
Chapter 8	Conclusions and further perspectives	165
References		181
Acknowledgment		211
Curriculum vitae		213
List of publications		217
Remarks on scholarship		221
Supplemental material		223