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Article / Book Information

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Thesis Outline

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Thesis outline

This dissertation consists of 6 chapters. In Chapter 1, general introduction of this study including background information regarding the *Bacillus subtilis*, genome-reduced strains of microorganisms, and its applications as well as objective of the study is described. Chapter 2 provides explanation related to characterization of *B. subtilis* genome-reduced strain. Here, cell morphology, growth profile in batch cultivation and tolerance levels against stress conditions of genome-reduced MGB874 strain were examined and compared to those in its parental strain OA105. Chapter 3 shows the applicability of the genome-reduced MGB874 strain as an ethanol production host, particularly during the stationary phase, followed by determination of genome region(s) affecting ethanol production in Chapter 4. In Chapter 5, potential of *B. subtilis* genome-reduced strain for L-valine production is explained. Finally, in Chapter 6, summary from all the results obtained from the previous chapters and future prospective of this study are described.