Preface

'Better is the end of a thing than the beginning' – Bible

The process development for recombinant proteins has become one of the front areas of biotechnology. However a recombinant protein needs to be an economically quality product, which is dictated by the characteristics and application of the produced compound. The demand for suitable expression systems and advanced bioprocess strategies is increasing as the emerging systematic genomics result in an increased number of targets for industrial organizations. For instance, in the drug market, the 420 currently examined targets are expected to increase to between 3000 and 10,000. *Saccharomyces cerevisiae* has been proven to be a successful host for the production of various FDA-approved recombinant pharmaceuticals. This underlines the need for more comprehensive and advanced genetic engineering as well as bioprocess engineering of *Saccharomyces cerevisiae* to extract the maximum from this non-pathogenic organism. The work embodied in this thesis has been focussed on expression and plasmid stability studies in recombinant yeast. This would be a step in understanding the problems, which come up during the scale-up of the product.

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I have fought a good fight. I have finished my course. I have kept the faith.

Jagdish