Acknowledgements

I would like to express the heartfelt gratitude to Professor Ryohei Kanzaki for his continuing guidance and invaluable advice.

I also would like to express cordial thanks to Dr. Koutaroh Okada and Mr. Tomoki Kazawa for many suggestions and discussion in these studies.

I also thank to people in my laboratory for many suggestions and discussion in this study

Finally I would like to express my best thanks to my parents, Hitoshi Seki and Kyoko Seki for their encouragements and supports.