

IV Acknowledgements

I wish to express my special gratitude to my respected Academic Advisor, Prof. Takehiko Saito who introduced me to work in this research field, who offered many helpful criticisms over the years, and who suffered the editing the many draft of this Thesis. I also thank Prof. Yoshimasa Tanaka, Prof. Masahiro Yamada, and Dr. Kei Nakatani for their critical reading of the manuscript and for their valuable comments.

I wish to express my thanks to Prof. Mustafa B.A. Djamgoz, Imperial Collage of Science, Technology and Medicine, London, for his critical reading of the manuscript and for his valuable suggestions .

I thank Dr. Chikafumi Chiba for his valuable advice and useful discussions regarding the exprerimental designs. I also thank my laboratory colleagues for their valuable discussions, and sharing so many memorable times.

I am thankful to my wife's parents and all other family members for their continuous encouragement and support.

Finally, I especially express my deepest appreciation to my parents, Inbo and Sugnyo, all other family members for ensuring that my education would be the best possible. My wife, Hyunjoo, and my lovely children, Mingyong and Minho have shared many moments with me in the last years and my wife has contributed to make my life a more interesting experience. I sincerely thank all of them for the silent, constant, and truly gratifying support.