

In Loving Memory of my Grandparents

Mr. and Mrs. Jack Lord

and

Col. S. H. Jones, Jr.

ACKNOWLEDGEMENTS

Without such a patient, understanding, and caring mentor this work would not have been possible. Thus, I would like to thank Professor H. W. Gibson for the many opportunities he has bestowed upon me and for encouraging not only myself, but all his students and colleagues to continually strive beyond the proverbial box and towards something that is much greater: self-gratification from a well-fought battle others were not willing to wage. I look forward to the future challenges of your laboratory.

I would also like to thank the members of my committee: Professors T. E. Long, H. Marand, and J. E. McGrath; I am fortunate to have such a wealth of knowledge at my fingertips. I am particularly indebted to Professor E. W. Meijer and Dr. A. W. Bosman of the Technical University of Eindhoven, The Netherlands for their hospitality, suggestions, encouragement, and persistence over the many months of trans-continental collaboration.

A sincere and immense debt of gratitude is owed the following colleagues and mentors whose many conversations and convictions furthered my graduate career at Virginia Tech: Peter B. Balanda, William S. Bryant, Francisco Cavadas, Amy Fletcher, Zhongxin Ge, Feihe Huang, Peter Lobue, Eric J. Mahan, Anthony J. Pasquale, Steven D. Smith, Hong Wang, Melissa J. Witmer, Jim Yang, and Liang Zhou.

Lastly, I owe everything to my two loving and wonderful life-professors, Col. S. H. Jones, III and Valerie L. Jones. Though you may not be able to readily distinguish an amide from an amine, the chemistry you share is an example for all, which unfortunately cannot be taught in a classroom or book.