ACKNOWLEDGEMENTS

It gives me immense pleasure and pride to express my deep sense of gratitude for my teacher and
guide Dr. J. S. Yadav, FNA, Director, Indian Institute of Chemical Technology for his evergreen
expertise and astute guidance he unabated enthusiasm, which stems from he absolute command over the
subject has been a constant source of inspiration to me to work hard and the outcome is expressed in the
form of this thesis.

I should justify myself by expressing my sincere thanks to Dr. S. Chandrasekhar, for his
constant encouragement and pragmatic suggestions at times of difficulty, which enabled me in bringing
this thesis to the present form.

Special thanks to Dr. P. Sridhar for his constant support, helpful discussions and
couragement during the course of this work.

I record my special thanks to Dr. J. Madhusudan Rao, Dr. K. Nagaiah, Dr. B. V. Subba
Reddy, Dr. A. C. Kunwar for their help and encouragement during my Ph. D. tenure.

I am extremely thankful to Dr. K. Venkatram Reddy for his immense help and support. I
especially thank to Dr. V. Jagadeswar, Madava Rao, Dr. C. V. Rao, Maruthi, G. V. Ramana and A.
Venkat Narsaiah, for their moral support and help.

Incredible companionship shared with Krishna Rao is highly appreciated.

I take this opportunity to thank all my senior labmates, R. Srinivasa Rao, G. Kondaji,
S.Praveen Kumar, P. Sreedhar, A.K. Basak, and V. Naveen Kumar for their unreserved help and
suggestions. I also thank my juniors Mandal, Shiva Ram Reddy, Kumar, Satyanarayana, Sathish,
Ramesh, Sreedhar, V.Bhashar, Suvanath, Prem, Ravishashidhar, Das, A.P.Singh, Tirupathi, Suresh,
Rajender, Dinesh, Vamsi, Rayudu and Mahesh.

I express my special thanks to the Sri Venkteswara university internal supervisor, and head of
the chemistry department Prof. Dr. Kusurkar, Lokande for their help and encouragement during my
Ph.D tenure.

I thank all colleagues Gokul, Dr.N. R. K. Reddy, Dr. C.N. Goud, Dr. Jayaprakash, Dr. T.V.
Prathap, Dr. Pandey, Dr. Madan Yadav, Dr. Ravinder, Dr. shaneem, Parimala, Sunder, Sateesh,
Sunitha, Dr. Chandrashekar, Dr.Skyamsunder, Murali, Santhi, Dr. A.K. Raju, Chary, Vijender,
Rambabu, V. S. R, Rajender, Gangadhar, Harsha, Sreedhar Reddy, Niranjan, Baskar, Swamy and my
batchmates, Vasu, Govind, Ashok, Venu, Venktram Reddy, Venkat Reddy, Prabhakar, Venkatesh,
Srinivas Reddy, Srinu, Suresh and Mallesh for their support during my research work. My special thanks goes to Vijaya for her help.

I thank all my friends Venkat Reddy, Purushotham Reddy, Sridhir, Venkanna, Somesh, Sunil, Venu, Shekar, K.V., and Mohan Reddy and for their help and encouragement during my research work.

Technical support provided by Mr. Uma Maheswara Sarma, Mr. Murali, Mrs. Madhuri, Mrs. Srilatha, Venkat and Mrs. Shivade is highly appreciated.

I thank to Anjaiah, Shankar, Laxma Reddy and Ram Mohan for their service.

It is impossible task to mention every individuals name and his/her contribution to my career at IICT. I thank all of them personally.

I invariably feel short of words to express my sincere thanks to my Parents whose efforts have brought me to this stage. I invariably feel short of words to express my deep sense of gratitude to my uncles and aunties who provided constant support and encouragement and whose blessings made the journey worth the effort. My Special appreciation to my sisters and brothers-in-law who have been a constant source of encouragement for me.

It is difficult to express my feelings towards my would-be Swapna for her accompany and encouragement.

The assistance rendered by NMR, Mass, other analytical divisions, administration and library is gratefully acknowledged.

Financial assistance from the council of Scientific and Industrial Research, New Delhi in the form of fellowship is gratefully acknowledged.

Finally, I thank The Director, IICT for allowing me to submit this thesis.

Shyamsunder Reddy J.