

Declaration by the Candidate

I do hereby declare that the research work described in the thesis has been carried out by me under the supervision of Dr. Sanjay Basumatary, Assistant Professor, Department of Chemistry, Bodoland University, Kokrajhar and Dr. Jatin Sarmah, Associate Professor, Department of Biotechnology, Bodoland University, Kokrajhar. No part of the thesis has been submitted to this or any other University for any other degree or diploma.

Place: Kokrajhar

Anuck Islary

Date:

ACKNOWLEDGEMENT

First and foremost, I would like to express my sincere and deepest sense of gratitude to my supervisors Dr. Sanjay Basumatary, Assistant Professor, Department of Chemistry, Bodoland University, Kokrajhar and Dr. Jatin Sarmah, Associate Professor, Department of Biotechnology, Bodoland University, Kokrajhar for their sustained interest, creative suggestions, motivation and exemplary guidance throughout the course of this work and without their continual inspiration, it would have not been possible to complete this study.

I extend my humble thanks to Dr. Sandeep Das, Associate Professor and Head, Department of Biotechnology, Bodoland University and all other former Heads of the Department for providing all the necessary facilities which made it possible to carry out my research work.

I greatly acknowledge the help and guidance of all the faculty members of the Department of Biotechnology throughout my research work.

I also gratefully acknowledge for the helps rendered by the laboratory and office staff in the Department of Biotechnology, Bodoland University.

I extend my thanks to the Librarian of Bodoland University, Kokrajhar for the facilities.

I sincerely admire the contribution of all my lab mates extending their unstinted support, timely motivation, sympathetic attitude and unfailing help during the course of entire study.

I thank all the teachers of my school days, graduation and post-graduation for inspiring and encouraging me in all endeavours.

My deepest gratitude goes to my family for their unflagging love and support throughout my life; this dissertation would have been simply impossible without them.

There are so many others whom I may have inadvertently left out and I sincerely thank all of them for their kind help.

Anuck Islary