

ACKNOWLEDGEMENTS

At the outset, I would like to thank my supervisor Professor Swapan K. Saha, Department of Chemistry, University of North Bengal, Darjeeling and cosupervisor Professor Bidyut K. Paul, Surface and Colloid Science Laboratory, Geological Studies Unit, Indian Statistical Institute, Kolkata sincerely for giving me the opportunity to carry out my PhD thesis under their supervision, on a research topic in the field of surface science. I am indebted to them for their helpful guidance throughout the course, especially when precise practical problems arose. Furthermore, I am grateful for the real autonomy they gave me so that I could “explore” the topic by myself and fulfill my own ideas.

I would like to thank UGC, New Delhi and Ministry of Social Justice & Empowerment, Government of India for providing the research fellowship. I wish to express my warm and sincere thanks to all the faculty members, office staffs and research scholars of the Department of Chemistry, University of North Bengal, Darjeeling for their assistance and support during my research work. I am also thankful to all the faculty members and office staffs of the Geological Studies Unit, Indian Statistical Institute, Kolkata who were always keen to cooperate with me.

My thanks are also addressed to my group members, Gulmi Chakraborty, Madhurima Paul Chowdhuary, Barnali Kar, Amitabha Chakraborty, Mrinmay Jha, Bidyut Debnath and Subroto Chakraborty for the nice and funny environment we had together.

My special thanks to Dr. Kaushik Kundu, Research Associate, Department of Biotechnology, Indian Institute of Technology, Madras for various discussions relating to science or otherwise and also for his support when things were at low ebb.

I am grateful to Dr. Sajal Das, Kausik Manna, Sumanta Gupta, Tamal Goswami, Bonita Shinha and all well-wishers who have always extended their helping hands whenever needed.

Finally I express my sincere thanks to my parents and all the family members for their blessing and encouragement specially during the course of my Ph.D