ACKNOWLEDGEMENT

I would like to express my gratitude and grateful regards to my guide Professor Kallol K. Ghosh, School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, for being tremendous mentor for me. This work would not have been possible without his attention, discipline, time management, scholarly suggestions, positive guidance, inspiration, blessings, unceasing encouragement, constructive criticism and support.

I also wish to express heartfelt gratitude to Prof. (Mrs) Rama Pande (Former Head), Prof. K. S. Patel, Head, School of Studies in Chemistry, Pt. Ravishanker Shukla University, Raipur for providing necessary laboratory facility and constant encouragement for this research work. My sincere thanks must go to Prof. (Smt) S. A. Bhoite, Prof. M. K. Deb, Prof. S. Pervez, Dr. M. K. Rai, and Dr. M. L. Satnami of School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur for their timely suggestions and guidance.

I would like to heartly express to my M. Phil guide, Prof. M.K. Deb, School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur for being tremendous support for me.

I would like to thank every staff member of School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, for their valuable suggestions and support from time to time. I also want to thank all the staff members of Pt. Sunderlal Sharma Library for helping me in literature survey during my research work.

I would like to thank University Grant Commission (UGC), for awarding me Junior Research Fellow (JRF) and Senior Research Fellow (SRF) under the scheme of Rajiv Gandhi National Fellowship during my research work.

I am grateful to Dr. Pierluigi Quagliotto and Dr. Nadia Barbero (Dipartimento di Chimica Generale ed Organica Applicata e Centro di Eccellenza NIS, Università degli Studi di Torino, Corso Massimo D’Azeglio 48, 10125, Torino, Italy) for providing me gemini surfactants, used in my work, also for their valuable guidance and discussions. I would also like to thank to Prof. P. Rodriquez Dafonte, Departamento de Quimica Fisica, Universidad de Santiago de Compostela, 15782, Santiago de Compostela, Spain and Dr. Kamil Kuca (Center of Advanced Studies and Department of Toxicology, Faculty of Military Health Sciences, Hradec Kralove, Czech Republic), for valuable suggestions and providing me diester substrate.

I would like to take this opportunity to express my sincere thanks to madam Smt. Shuvra Ghosh for her best wishes and overwhelmed support.

I express my heartiest appreciation to my senior research colleagues Prof. S. K. Sar (Bhilai Institute of Technology, Durg), Dr. (Mrs.) Sunita Patnayak, Dr. (Mrs.) Sancheeta Banerjee, and Dr. Ashish Shrivastava for
helping me in each difficult moment during my research work. I would like to take this chance to express my sincere thanks to Late Shri J.K. Tikariha and Smt. Anusueya Tikariha for his best wishes, attention, suggestions, and overwhelmed support. I would also like to thank to Dr. T. R. Dehre (Principal), Govt. Rajmata Vijyaraje Sindhiya Girls College, Kawardha (C.G.) for providing me leave and timely suggestions.

My warmest thanks go to all my laboratory senior and junior Dr. (Mrs.) Shuchi Tiwari, Dr. Santosh K Verma, Dr. Deepti Tikariha, Dr. Namrata Singh, Ms. Bhanushree Gupta, Mr. Rahul Sharma and Ms. Jyotsana Lakra for providing me an enthusiastic and friendly working environment. I also thanks to M. Phil. Students, Ms. Pooja Dewangan, Ms. Sweta Bharadwaj, Ms. Savita Pataila, Mr. Bhupendra Ghritlahre, Mr. Ramdayal Sahu, Mr. Hitesh Dewangan, Ms. Toshikey Yadav and Sharda Pandey.

I grateful and thankful to my elders and friends, Dr. Santosh Verma (Scientist), Dr. Devsharan Verma, Dr. (Mrs.) Rekha Satnami, Dr. Ghanat Joshi, Shri R. D. Ghidorey, Smt. Preeti Ghidorey, Dr. Ravi Banjare, Dr. Balakrishana, Mr. L. S. Kanwar, Mr. Ugendra Kurrey, Mr. Dhananjay Deshmukh, Ms. Sandhya Patre, Ms. Madhavi Rajak, Mrs. Sushma Singh Yadav, Ms. Deepti Chandrakar, Mr. Deenu Kurre, Mr. Mahesh Ram Kanwar, Mr. Indrapal Karbhal, Mr. Bhupendra Sen, Mr. Jayant Nirmalkar, Mr. Sandeep Kumar Vaishnav, Mr. Manish Pardhi and Mr. Ish Tandan who extended all possible moral support and encouragement during my extrenuous study period and prayed for me.

I fell short of words in expressing my feelings towards my best friend Deepti Tikariha and Piyush Thakur for providing me co-operation and emotional support.

The driving forces for accomplishment of my endeavor are my beloved grandparents, Late Mr. Bhagela Ram and Late Mrs. Jugam Bai, my parents, Mr. Chowa Ram Jangde and Mrs. Jana Bai Jangde who extended every care, moral support and affection not only in this period but during my entire span of life. I am indebtly grateful to my loving sister Mrs. Rajbai Tandan and Mrs. Rukhmani Dehre, Late (Mr.) Garib Das Dehre and brother Shri Ashwani Jangde, Smt. Parwati Jangde (Bhabhi), Shri Nandkumar Koshle, Smt. Kusum Koshle (Bhabhi), Mr. Santosh Tandan (Jijaji), Mr. Girdhari Koshle (Mama), Smt. Panchbai Koshle (Maternal Aunt) for providing me invaluable help, moral support, valuable suggestion and loving environment during my project work. I fell short of words in expressing my feelings towards my nephew and niece Yogeshwar, Aarti, Chhaya, Nageshwar, Alisha, Vinay, Bindiya, Muskan, Rajiv, Komal and Nitin for providing me emotional support.

Lastly, I wish to apologize for any inadvertent omission of the names of the persons who had helped me in one way or the other. Finally, and most importantly, I would like to thank the almighty God, for it is under his grace we live, learn and flourish.

Place: Raipur
Date: Birendra Kumar