

## ACKNOWLEDGEMENT

I take this opportunity to express deep sense of gratitude to my guide and Head of Textile Chemistry Department, Prof. (Dr.) D.P. Chattopadhyay, under whose guidance, I have carried out this work. It is his constant encouragement, keen interest and invaluable guidance which has helped me to complete this work. His insight and critical evaluation have been of great help throughout the work. It was really a pleasing opportunity to work under his worthy guidance.

I express my deep gratitude to the management and principal of Sarvajanik college of Engineering & Technology, Surat for giving me the permission for the admission and allowing utilizing laboratories.

I am very much thankful to M/s Mafatlal Industries Ltd, Navasari; M/s Colourtex Ltd, Surat, M/s Marine Chemicals, Kochi, Kerala, M/s Mahtani Chitosan Pvt. Ltd., Veraval, Gujarat for providing for providing required fabrics, dyes and chemicals. Also many thanks to Dept. of Chemistry, S.P. University, Vallabh Vidyanagar, Dept of Metallurgy, Feculty of Tech and Engg, Vadodara, M/s SICART, Vallabh Vidyanagar, M/s Choksi Laboratories, Vadodara, M/s Pollucon laboratories Pvt Ltd, Surat and Chemical Engineering Department, SVNIT, Surat for providing the necessary testing facilities.

I am thankful to the librarians of Faculty of Tech & Engg, Vadodara and SCET, Surat and other standard publications for the information; I have drawn for literatures during preparation of this work.

I express my deep gratitude to Dr. S.B.Guha, Dr. S.S. Bhattacharya and Dr. A.K Mairal for their blessings and all the staff members and friends of Textile Chemistry Department namely Dr B.H Patel, Dr. S. R. Shah, Dr. J. N. Shah and Dr B.J. Agrawal for the assistance provided by them during this project work. I express my sincere thanks to my friends Javed Khan, Amit Halbe, Shweta, Ankur, Disant and all my friends who were directly or indirectly helpful me to complete this work.

Special thanks to Ashwin Rathod, Hintendra Patel, Shailesh Raval, Piyush Patel, Vijabhai, Mrs Yoginiben, Mrs Dulariben, Bhavasarbhai, and administrative staff of SCET, Surat and Textile Chemistry Department, Kalabhuvan, Vadodara for their help in doing this research work.

I am highly indebted to Rajabhau and Vahini, Aai and Baba, Mavasi, and Shri Goel saheb for their blessings and I express my sincere thanks to my wife for her forbearance & patience, without which this thesis would not have possible.

Finally, I thank to almighty for his blessings on me forever.....

Vadodara Milind S. Inamdar

₹8 January 2014