

ACKNOWLEDGEMENTS

I sincerely express my deep sense of gratitude and thank my guide Prof. C. N. Murthy, Applied Chemistry Department, for his invaluable guidance, expert suggestions throughout my research work. He is responsible to inspire me for developing the sense of commitment and firmness to carry out this work. I also thank him for his constant encouragement, help and providing necessary facilities throughout this work.

I deeply thank Prof. P. T. Deota, Head, Applied Chemistry Department, Faculty of Technology and Engineering, M. S. U. for their continual support and encouragement during my research work.

I deeply thank The M. S. University of Baroda, Vadodara for providing me the opportunity to carry out this research work and especially Applied Chemistry department to provide necessary facilities to carry out my research work in their research lab.

I deeply thank DRDO (Defense Research Development Organization) for funding my project and helping in metal removal studies.

I thank Dr. Vandana Rao, Metallurgy Department, Faculty of Technology and Engineering, M. S. U. for her guidance and help conducting out SEM and EDX studies.

I deeply thank Choksi Laboratories, Munjmahuda, Vadodara to help me carry out NMR studies.

I deeply thank Dr. A. V. R. Reddy of CSMCRI (Central Salt and Marine Chemicals Research Institute) Bhavnagar to help me carry out Capillary porometry studies.

I am thankful to all the teachers and non-teaching staff of the Applied Chemistry Department for supporting me throughout the research work.

I thank all my fellow colleagues Dr. Santosh Kumar, Dr. Vinod Bhoi, Dr. Murali, Vaishali Suthar, T. Gangadhar, Renu Singh for their continuous support and encouragement throughout my research work.

My deepest gratitude and indebtedness belong to my sweet Daughter, my Husband, father, mother, brother, sister and in-laws for their patience, endless love, encouragement and understanding during the different phases of my work and made it possible to complete this thesis.


Prachi Shah