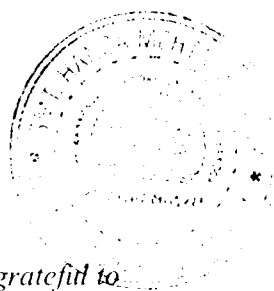


ACKNOWLEDGEMENTS



Many people contributed to this dissertation in innumerable ways, and I am grateful to all of them. First and foremost, I would like to thank my supervisor, Prof. N. L. Singh. Without his support, this project would have not been possible. He brought unique perspectives to my work, enriching it greatly. His encouragement and enthusiasm was important for the completion of this project.

I would like to thank Prof. C. F. Desai, Former Head and Prof. A. C. Sharma, Head, Department of Physics for providing me an opportunity to work in the Physics Department of M. S. University, Baroda. I express my heartiest thank to Dr. P. K. Mehta for his cooperation and encouragement during this work.

I would like to thank Prof. S. Mukherjee, Head FCIPT Division, and Mr. R. S. Rane for providing plasma treatment facility and characterization techniques available at IPR, Gandhinagar.

Many thanks to Dr. Ajay Gupta, Former Centre Director, IUC-UGC-CSR, Dr. V. Ganesan, Centre Director, IUC-UGC-CSR, Indore, T. Shripathi and U. P. Deshpande for providing various sophisticated characterization techniques.

I am thankful to my lab colleagues performing their Ph.D work, Dr. Anjum, Ms. Chaitali, Dr. Sejal, Dr. Dolly, Dr. Prashant, Ms. Sangeeta, Mr. Vijay and Mr. Gyansagar for their help during paper editing and evaluating various characterizations.

My sincere thanks to Dr. P. M. Shah and Dr. S. N. Shukla, former Hon. Directors and Dr. R. K. Vyas, Director, Gujarat Cancer & Research Institute, Ahmedabad (GCRI) for issuing a Ph. D permission and providing all time support. I thank to Shri. N. S. Shah, Librarian and Shri. Jagdish Goel, Assist. Librarian, GCRI for providing their

consistent support to get various literature available in and from outside the campus. I also like to thank my colleagues at GCRI for their consistent support.

I thank my parents: Mr. Manohar Pelagade and Mrs. Kamal Pelagade for their encouragement to pursue my interest. My wife Archana and sweet daughter Aarya suffered a lot during this period of my Ph.D work, I am thankful to them.

Date: 30/12/2013

Place: Vadodara

(Satish M. Pelagade)