

ACKNOWLEDGEMENTS

It gives me a grate pleasure to express my deep sense of gratitude and indebtedness to my honorable guides Prof. M.K.Agarwal and Prof. S.K.Arora. I would never have been raised a single step without their precious, inspiring, encouraging and valuable guidance.

I am thankful to the authority of the Sardar Patel University for providing me all necessary facilities. Thanks are also due to Head, Department of Physics, Sardar Patel University for providing me excellent facilities for carrying out present investigation, smoothly. I am feeling very much lucky to have constant inspiration, warm and invaluable moral support from Dr.A.T.Oza, Dr.V.M.Pathak, Dr.M.P.Deshpande, Dr.K.D.Patel and Mr.G.K.Solanki. They extended their helping hand all the ways even in adverse conditions during the long period of this research work. Words of thanks are really less to express my heartfelt feelings towards them.

I would like to extend my feelings of gratitude towards Mr. J.S.Patel, Principal, Arts Science and R.A.Patel Commerce College for sanctioning necessary permissions to take up this research endowment and for standing behind me as a constant source of encouragement. Thanks are due to all my colleagues at my college.

The contribution of the non-teaching and supporting staff of the department is unforgettable; I also express my deep gratitude for them. I am grateful to the staff of USIC, SPU, for their timely and valuable help whenever needed.

I am highly thankful to Dr. Ajay Agarawal for his timely, valuable and friendly support. Thanks are also due to Mr. Sudeep Goyal, Mr. Yogesh Patel, Miss. Dhairya Dholakiya, Mr. Roshan Mathew and Mr. Vipul Patel, for their kind and generous co-operation.

Friends are always a source of encouragement and form a fabric of friendship through which some good work may have cultivating boost. Hence I wish to record the words of hearty thanks for Mr. Sanjay Shah and his family.

I extend my thanks towards Mr. Navinbhai Talpada of Chemistry Department for his kind co-operation while carrying out optical characterisations. Sincere thanks are due to Dr. Ravle (IPR, Bhat) for EDAX analysis and Dr. M.C. Gupta (RSIC, Nagpur) for XRD facilities. Literature survey is an integral part of any research work without which it would seem rather incomplete. Hence, I wish to record my words of thanks for Mrs. Ribero, Head, Library Information Service, BARC for providing me necessary library facilities.

I wish to record my gratitude towards Mr. Vasantbhai Chauhan who has typed this manuscript with careful, constant and pain taking efforts.

At the end, I extend my feelings of thanks for my wife Hema and loving son Karm for spending days and months together without me. Their constant, untiring support and faith encouraged me time to time.

I am also thankful to all the persons who supported me directly or indirectly throughout the tenure of this work.

- Ramesh Patel

