ACKNOWLEDGEMENT

The author places on record his deep sense of gratitude and indebtedness to his research supervisor, Prof. C. Subramanian, Director, Crystal Growth Centre, for his pedagogic guidance, scholarly advice and personal interest.

The author is extremely grateful to Prof. P. Ramasamy, Vice Chancellor, Alagappa University, Karaikudi, for introducing him to the exciting field of Crystal Growth and for his constant encouragement. The author is very much thankful to Prof. R. Dhanasekaran, Registrar, Alagappa University, Karaikudi for his help, suggestions and critical comments during the course of this work.

The author expresses his gratitude to his mentor and long time adviser Prof. F. Jesurethinam, Sacred Heart College, Tiruppattur, N.A.A. Dt. for all the help rendered during the course of this investigation. The author thanks Dr. J. Kumar and Dr. R. Jayavel for their advice and critical comments during the course of present investigation.

The author is thankful to all his research colleagues, in particular to Dr. C. R. Venkateswara Rao, Dr. F. Joseph Kumar, Mr. A. Thamizhavel, Mr. S. Arulkumaran, Mr. R. S. Qhalid Fareed and Mr. R. Kumaresan for their useful co-operation and timely helps.

The author expresses his gratitude to his scientific collaborators, Prof. S. C. Abbi, Prof. A. V. Narlikar, Mr. G. V. N. Rao and Dr. G. Bocelli. The author wish to acknowledge the CSIR, Govt. of India for the award of Senior Research Fellowship.

The author wholeheartedly thanks his parents, brothers and sister for their encouragement and constant support.

C. Sekar