ACKNOWLEDGEMENT

With a deep sense of gratitude, I thank my supervisor Dr. P. Manohar, Professor and Head, Department of Ceramic Technology, A.C.Tech Campus, Anna University, Chennai-600 025, for his valuable suggestions, critical comments, encouragement and inspiration.

I thank Dr. C. Kumar, Asst. Professor, Department of Physics, Govt College for Men, Nandanam, Chennai- 600 015, who introduced me to the field of microwave dielectrics. My special thanks to Dr. K. Ravichandran, Assistant Professor, Department of Nuclear Physics, University of Madras, for his constant support and encouragement.

I would like to acknowledge the support extended to me by, Dr. V. Viswa Baskaran, V.B.Ceramics, Chennai-600041, Dr. R. Krishnan Scientist, IGCAR Kalpakkam and Dr. M. Chandrasekaran, and the principal Dr. K. Chidambaram and the Management of Sri Ramanujar Engineering College kolapakkam, Chennai-127, for their encouragement and support.

Words cannot express my feelings when I remember the sacrifices made by my parents, my wife N. Abirami and child G. Sadhana, for their constant support and encouragement, to complete the research work.

GANESH BABU P