ACKNOWLEDGEMENTS

I am deeply beholden to my research supervisor, Prof. P. K. Mehta, for his invaluable guidance throughout this work. I owe him sincere regards and gratitude for his immense help, critical evaluation and constant encouragement that saw me through this arduous task. I am equally grateful to Dr. Naveen Chaudhri, my co-supervisor, for his help and guidance, especially in sampling, getting my samples analysed from Germany and in computer graphics.

I am highly thankful to Prof. M. Okrusch and Ms. Rosemarie Baur, University of Würzburg, Germany, for major and trace element analyses of granitoids and metabasic rocks, to Prof. H.-A. Seek, University of Cologne, Germany, for REE analyses of granitoids and to Dr. K. Mengel and Dr. Kai Schmidt, University of Clausthal, Germany, for REE analyses of metabasic rocks. I am thankful to the Director, Geological Survey of India, Chandigarh, for access to their point counter and Shri C. S. Jamwal for his help in carrying out modal analysis.

My sincere thanks are due to Prof. R. K. Kakkar, present Chairman, and to Prof. R. S. Chaudhri, former Chairman, Centre of Advanced Study in Geology, Panjab University, for providing all available facilities in the department for my research work.

All the faculty members of the department, especially, Prof. A. Sahni, Prof. B. K. Das, Prof. L. N. Gupta, Dr. (Mrs.) Veena Dadwal and Dr. A. D. Ahluwalia, were kind enough to help me at various stages of the work. Dr. Rajeev Patnaik was very helpful in computational work. I thank them all.

It is my pleasure to thank Shri P. N. Jain, Shri Anil Vyas and Shri N. K. Gami of the Hindustan Copper Ltd. for their help in lodging at Khetri Copper Complex. I thank Mr. Dharampal, field assistant, for his hard work in sample collection. I am also thankful to all office, library and laboratory staff of the C.A.S. in Geology for their support and co-operation.

My special thanks are due to late Prof. A. S. Kalra, Prof. Hari Narain (NGRI), Mrs. Satvita Mehta, Dr. Adarsh Kohli, Mrs. and Mr. H. B. Singh Chopra for their immense encouragement and moral support. I wish to place on record sincere thanks to my colleagues and friends, Dr. Shashi Kalsi, Dr. Seema Rawal, Dr. Prakash Kaur, Ms. Nidhi and Dr. Ahmad.

No words would suffice to express gratitude to my parents, Mrs. Satnam Kaur and Mr. D. S. Arora, my sisters Amwinder and Satwinder and their families for their affectionate care, understanding, encouragement and patience, that sustained me through this work.

Financial grant from Council of Scientific and Industrial Research (CSIR), New Delhi, vide grant F. No. 9/353/88/EMR-I in the form of Junior and Senior Research Fellowships for carrying out this work is thankfully acknowledged.

Gurneet Kaur
Chandigarh,