Acknowledgements

This thesis embodies the work carried out under the inspiring guidance of Prof. G. V. R. Prasad and Dr. Varun Parmar of Centre of Advanced Study in Geology, Delhi University and Post Graduate Department of Geology, University of Jammu, respectively. My greatest thanks go to them for their everlasting guidance, critical evaluation, constant encouragement and inspiration throughout the course of my research work.

I am gratefully indebted to the Head of the Department Geology, Prof. G. M. Bhat for extending me all the laboratory and infrastructural facilities necessary for this work. This work was initiated during the tenure of Prof. M. A. Malik as the Head of Department of Geology, University of Jammu. Special thanks are due to him.

I am also thankful to all the faculty members of the Department for their encouragement and help during the course of present work. I express my sincere gratitude to Dr. N.C. Mehra, Technical Officer, Department of Geology, Delhi University for taking SEM photomicrographs and Mr. L. Ranjit Singh and Miss. R.K. Priyadarshini, Research Scholars of the Department of Geology, University of Delhi for their help in making the figures and plates.

I would also like to thank all the non-teaching members for providing unstinting support during the course of this work.

I also extend my thanks to my senior colleagues and friends who were ever willing to provide their help and support whenever I needed it. I am especially grateful to them for providing friendly and cordial atmosphere during my work. In this regard special thanks are due to Mr. Parveen Kumar and Mr. Kamaljeet Singh, Teachers of the School Education Department, Jammu and Kashmir. I am also thankful to Mr. Anil Dev Singh and Mr. Sanjay Singh.

I owe to my parents for their patience, inspiration, moral and financial support throughout the course of this work. I am also thankful to my brother, sister-in-law, sisters and brother-in-law, niece Hiteshi, nephew Akhilesh, and my wife Anita who supported me morally to complete the work.

Supreem Singh Jamwal