ACKNOWLEDGMENTS

First and foremost I would like to thank Prof. Rainer Kind, my dissertation advisor for his support and encouragement over the past five years. I benefitted a lot from his vision of seismology that he generously shared with me.

I also feel indebted to Dr. Günter Asch for his support and would like to express my gratefulness to Prof. Zschau for his continual favor before and during this study.

I am writing this in memory of Dr. Günter Bock, my second advisor who lost his life in a tragic plane crash in November 2002. In the last four years I have had the privilege to enjoy his company, his gentlemanly manners and the scientific discussions we had.

My sicncere thanks are due to the German Foreign Exchange Program (DAAD) and GeoForschungsZentrum Potsdam for their financial and all—out support during this research.

I feel grateful to Jürgen Gossler for his contributions specially during first year of this study, to Walter Mooney for interesting discussions we had and to my colleagues and friends, Dr. Xiaohui Yuan, Dr. Winfried Hanka, Dr. Helmut Grosser, Jörn Kummerow, Ms. Forough Sodoudi, Ms. Heide Vogler and Ms. Ute Borchert and all the others whose name have not been mentioned here for all the help they lent me.

I find no words to express my gratitude to my family. Without their incessant unconditional support not much could have been done.