

CONTENTS

Preface	V
<i>Modelling Graben Formation</i>	
Crustal doming and the mechanism of continental rifting Bott, M.H.P. (Durham, England)	1
Mechanisms of continental riftogenesis Artyushkov, E.V. (Moscow, U.S.S.R.)	9
Thermal regimes, mantle diapirs, and crustal stresses of continental rifts Bridwell, R.J. (Los Alamos, N.M., U.S.A.) and Potzick, C. (Santa Cruz, Ca., U.S.A.)	15
Crustal uplift and the propagation of failure zones Neugebauer, H.J. (Clausthal-Zellerfeld, F.R.G.) and Temme, P. (Frankfurt/Main, F.R.G.)	33
Parameterized rift development and upper mantle anomalies Seidler, E. and Jacoby, W.R. (Frankfurt/Main, F.R.G.)	53
The Central European graben system: rifting imitated by clay modelling Elmohandes, S.-E. (Karlsruhe, F.R.G.)	69
<i>Crust and Mantle Structure</i>	
The continental rift system of the Rhinegraben — structure, physical properties and dynamical processes Fuchs, K., Bonjer, K.-P. and Prodehl, C. (Karlsruhe, F.R.G.)	79
The Baikal rift: an example of the intrusion of asthenospheric material into the lithosphere as the cause of disruption of lithospheric plates Zorin, Yu.A. (Irkutsk, U.S.S.R.)	91
<i>Stress Regime, Strain Release and Geothermal Implications</i>	
Regional stress field and rifting in Western Europe Baumann, H. (Karlsruhe, F.R.G.)	105
Rhinegraben: horizontal stylolites indicating stress regimes of earlier stages of rifting Buchner, F. (Karlsruhe, F.R.G.)	113
Recent height changes in the central segment of the Rhinegraben and its adjacent shoulders Zippelt, K. and Mälzer, H. (Karlsruhe, F.R.G.)	119
Geothermal systems in the Upper Rhine graben and northern Black Forest: a chemical and stable isotope study Friedrichsen, H. (Tübingen, F.R.G.)	125
A model for hydrothermal convection in the Rhine graben and its tectonic implications Hoffers, B. (Karlsruhe, F.R.G.)	141
<i>Geological Contributions: Active Rifts</i>	
Graben Formation — The Maltese Islands — a case history Illies, J.H. (Karlsruhe, F.R.G.)	151
Two phases of Cretaceous—Tertiary magmatism in the Eastern Desert of Egypt: paleomagnetic, chemical and K-Ar evidence Ressetar, R. (Wilmington, N.C., U.S.A.), Nairn, A.E.M. (Columbia, S.C., U.S.A.) and Monrad, J.R. (Chapel Hill, N.C., U.S.A.)	169
<i>Geological Contributions: Extinct Rift Valleys</i>	
On the nature of greenstone belts in the Precambrian Grachev, A.F. and Fedorovsky, V.S. (Moscow, U.S.S.R.)	195

VIII

Aulacogens of ancient platforms: problems of their origin and tectonic development	
Milanovsky, E.E. (Moscow, U.S.S.R.)	213
 <i>Epilogue</i>	
Mechanism of graben formation	
Illies, J.H. (Karlsruhe, F.R.G.)	249