

# Contents

## Silicic Lava Domes

---

Regularities in Growth of the Mount St. Helens Dacite Dome 1980–1986 D.A. SWANSON and R. T. HOLCOMB (With 10 Figures) .....	3
The Development and Distribution of Surface Textures at the Mount St. Helens Dome S. W. ANDERSON and J. H. FINK (With 10 Figures) .....	25
Lava Domes Modeled as Brittle Shells that Enclose Pressurized Magma, with Application to Mount St. Helens R. M. IVERSON (With 9 Figures) .....	47
A Model for Dome Eruptions at Mount St. Helens, Washington Based on Subcritical Crack Growth R. P. DENLINGER (With 4 Figures) .....	70
Viscoplastic Models of Lava Domes S. BLAKE (With 17 Figures) .....	88

## Mafic Lava Flow

---

Surfaces of Aa Flow-Fields on Mount Etna, Sicily: Morphology, Rheology, Crystallization and Scaling Phenomena C. KILBURN (With 11 Figures) .....	129
Longitudinal Variations in Rheological Properties of Lavas: Puu Oo Basalt Flows, Kilauea Volcano, Hawaii J. H. FINK and J. ZIMBELMAN (With 7 Figures) .....	157
Numerical Simulation of Lava Flows on Some Volcanoes in Japan K. ISHIHARA, M. IGUCHI, and K. KAMO (With 20 Figures) .....	174

On the Mechanisms of Lava Flow Emplacement and Volcano  
Growth: Arenal, Costa Rica

A. BORGIA and S. R. LINNEMAN (With 11 Figures) ..... 208

Subject Index ..... 245