

Contents

A. Processes of Carbonate Formation and Diagenesis

BATHURST, R. G. C.: Precipitation of Ooids and Other Aragonite Fabrics in Warm Seas	1
FRIEDMAN, G. M.: The Fabric of Carbonate Cement and Matrix and its Dependence on the Salinity of Water	11
USDOWSKI, H.-E.: The Formation of Dolomite in Sediments	21
LIPPMANN, F.: Syntheses of BaMg(CO ₃) ₂ (Norsethite) at 20 °C and the Formation of Dolomite in Sediments	33
ROTHE, P.: Dolomitization of Biocalcareous of Late-Tertiary Age from Northern Lanzarote (Canary Islands)	38
FLÜGEL, H. W.: Some Notes on the Insoluble Residues in Limestones	46
MARSCHNER, HANNELORE: Relationship Between Carbonate Grain Size and Non-Carbonate Content in Carbonate Sedimentary Rocks	55
EBHARDT, G.: Experimental Compaction of Carbonate Sediments	58
PARK, W.-C., and E. H. SCHOT: Stylolitization in Carbonate Rocks	66
TRURNIT, P.: Analysis of Pressure-Solution Contacts and Classification of Pressure-Solution Phenomena	75

B. Microtexture and Microporosity of Carbonate Rocks

FLÜGEL, E., H. E. FRANZ, and W. F. OTT: Review on Electron Microscope Studies of Limestones	85
HELING, D.: Microporosity of Carbonate Rocks	98

C. Geochemistry of Carbonates and Carbonate Rocks

BAUSCH, W. M.: Outlines of Distribution of Strontium in Marine Limestones	106
MÜLLER, G.: Exceptionally High Strontium Concentrations in Fresh Water Onkolithes and Mollusk Shells of Lake Constance	116
MARSCHNER, HANNELORE: Ca-Mg-Distribution in Carbonates from the Lower Keuper in NW-Germany	128
HILLER, K.: Proof and Significance of Amino Acids in Upper-Jurassic Algal-Sponge-Reefs of the Swabian Alb (SW-Germany)	136
KRUMBEIN, W. E.: Geomicrobiology and Geochemistry of the "Nari-Lime-Crust" (Israel)	138

D. Regional Carbonate Petrology

I. Freshwater Carbonates and Carbonate Rocks

SCHÖTTLE, M., and G. MÜLLER: Recent Carbonate Sedimentation in the Gnadensee (Lake Constance), Germany	148
IRION, G., and G. MÜLLER: Mineralogy, Petrology and Chemical Composition of Some Calcareous Tufa from the Schwäbische Alb, Germany	157

II. Marine Carbonate Rocks

MATTER, A.: Tidal Flat Deposits in the Ordovician of Western Maryland	172
SEILACHER, A.: Origin and Diagenesis of the Oriskany Sandstone (Lower Devonian, Appalachians) as Reflected in its Shell Fossils	175
KREBS, W.: Facies Types in Devonian Back-Reef Limestones in the Eastern Rhenish Schiefergebirge	186
FÜCHTBAUER, H.: Carbonate Sedimentation and Subsidence in the Zechstein Basin (Northern Germany)	196
GWINNER, M. P., G. BACHMANN, K. SCHÄFER, and K. SKUPIN: The Bioclastic Limestones of the "Trochitenkalk" (Upper Muschelkalk) in SW Germany	205
ZANKL, H.: Sedimentological and Biological Characteristics of a Dachsteinkalk Reef Complex in the Upper Triassic of the Northern Calcareous Alps	215
TOSCHEK, P. H.: Sedimentological Investigation of the Ladinian "Wettersteinkalk" of the "Kaiser Gebirge" (Austria)	219
MÜLLER-JUNGBLUTH, W.-U.: Sedimentary Petrologic Investigation of the Upper Triassic "Hauptdolomit" of the Lechtaler Alps, Tyrol, Austria	228
FABRICIUS, F. H.: Calcareous Sea Bottoms of the Raetian and Lower Jurassic Sea from the West Part of the Northern Calcareous Alps	240
ALDINGER, H.: Ecology of Algal-Sponge-Reefs in the Upper Jurassic of the Schwäbische Alb, Germany	250

E. Applied Carbonate Petrology

SCHEITLER, H.: Continuous Gasometric Carbonate Determinations in Cuttings from Drill Holes	254
------------------------------------------------------------------------------------------------------	-----