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COMPTES RENDUS

GEOCHIMIE UND VERERZUNG IM RHEINISCHEN SCHIEFERGEBIRGE. - Ed. FORTSCHRITTE IN DER GEOLOGIE VON RHEINLAND UND WESTFALEN, BAND 34, 508 p., 135 fig., 77 tabl., Geol. L. Am Rheinld u Westf., 1986, Krefeld.

Volume comprenant 16 articles de différents auteurs et concernant les dépôts plombifères de Mechernick, l'organisation et la réalisation d'un programme de sondage dans le paléozoïque du nord de l'Eifel, d'étude des schistes noirset calcaires, nodulaires du synclinal de Inde, la minéralisation épigénétique (plomb-zinc) de la région Stolberg Aix-la-Chapelle, de la géochimie et minéralogie du Cambro-Ordovicien du SE du Massif de Stavelot; l'étude des roches ignées du nord de l'Eifel, de la barite à l'Est de Stolberg, du Dreislar et dans le bas Rhin, des recherches minières (plomb) à Bensberg, de couches stratiformes de pyrite à Balve, de la distinction de minéraux lourds, de l'arsenic, du mercure et de l'iode au NE du Siegerland.

Un dernier article traite des relations entre la végétation et les minéraux lourds provenant du site des anciennes mines de Mechernick.

E. GROESSENS

HYDROTHERMAL EXPERIMENTAL TECHNIQUES. - Edited by Gene Carleton Ulmer and Hubert Lloyd Barnes. John Wiley & Sons Limited, Distribution Centre, 1 Oldlands Way, Bognor Regis, West Sussex, England PO22 9SA, 1987, 514 p., £ 38.50.

Hydrothermal technology has changed considerably in the last decade, but the techniques literature has, until now, lagged behind. Hydrothermal Experimental Techniques brings the printed coverage up to date with a survey of the new methods now available, the important new variations on established techniques, and some currently evolving approaches of major promise.

Top scientists in the front ranks of research cover a wide range of techniques. These will allow readers to conduct quantitative experiments on hydrothermal systems to temperatures well above 1000°C and to the megabar pressure range.

Topics covered include mineral solubility and speciation in supercritical chloride fluids, problems in working with hydrogen under hydrothermal conditions, rocking autoclaves for hydrothermal experiments, cold-seal systems, gas-solubility experiments, and more.

DICTIONARY OF THE PHYSICAL SCIENCES. - By Emili- ni. Oxford University Press, Walton Street, Oxford OX2 6DP. Hardback £27.50; Paperback £ 17.50.

Ce dictionnaire de 365 pages, comprend 5.000 définitions de termes de physique, chimie, géologie et cosmologie. Il comprend également 70 tableaux. Les définitions sont brèves et rigoureuses, les abréviations sont explicitées.

Cet ouvrage est destiné à retrouver rapidement des informations importantes et est une source de références importantes tant pour les enseignants que pour les étudiants.

E. GROESSENS

EPIFAUNE ET ENDOFAUNE DE LIOGRYPHAEA ARCUATA (LAMARCK). - Contribution à l'écologie des populations de Liogryphaea arcuata (LAMARCK) dans le Sinémurien au NE du Bassin de Paris par Armand HARY (1987). Editeur : TRAVAUX SCIENTIFIQUES DU MUSÉE D'HISTOIRE NATURELLE DE LUXEMBOURG, Marché-aux-Poissons, L-2345 Luxembourg, 79 p., 13 planches.

Plus de 2000 exemplaires de Liogryphaea arcuata (LAMARCK), provenant de quatre populations du nord-est du Bassin de Paris, Sinémurien en faciès lorrain, ont été examinés du point de vue paléontologique et paléo-écologique.

Dans une première partie sont répertoriés les représentants de l'épifaune.

Une deuxième partie essaie de reconstruire l'environnement biologique et sédimentologique des populations en question, tandis que, dans un dernier chapitre, l'auteur examine la position de vie de Liogryphaea arcuata (LAMARCK) dans le contact de l'épifaune et de l'endo-faune.

HISTORY OF THE EARTH'S ATMOSPHERE. - M.I. BUDYKO, A.B. RONO, A.L. YANSHIN, Leningrad, USSR. Translated from the Russian (1985). Ed. Springer-Verlag GmbH & Co. KG, Heidelberg Platz, 3, Postfach, D-1000 BERLIN 33 1987, 40 figs. Approx. 150 pp. Soft cover DM 88.-.

Recognition of the close relationship between changes in the chemical composition of the atmosphere and the evolution of the Earth's sedimentary shell is relatively recent. Based on this relationship, the authors reconstruct the changes of the atmospheric concentration of car-

bon dioxide and oxygen throughout the Earth's history, using quantitative data on geological changes in carbonate sediments. In addition, the authors attempt to estimate the effect of atmospheric changes on the evolution of the biosphere and point out that if atmospheric carbon dioxide continues to increase due to burning of fossil fuels, the future climate of the Earth may correspond to climatic conditions during those epochs when atmospheric carbon dioxide was high.

OBSERVATION OF THE CONTINENTAL CRUST THROUGH DRILLING II. - H.-J. BEHR, Göttingen, Germany; F.G. STEHLI, Norman, OK, USA; H. VIDAL, Gauting, Germany (Eds). Proceedings of the International Symposium held in Seeheim, 3-6 October, 1985. (Exploration of the Deep Continental Crust). Editeur Springer-Verlag GmbH & Co KG, Heidelberger Platz 3, Postfach, D-1000 Berlin 33, 1987, 95 figs. Approx. 230 p. Hard cover DM 84.-

The purpose of this book is to inform geoscientists about the progress made in scientific continental deep drilling as a new method for studying the continental crust. The Seeheim symposium was the second meeting organized for experts of the various national programs to present and discuss the results and progress made in their respective programs since the first symposium in Tarrytown in 1984. Various contributors dealt with the present state of -and experience in - deep drilling techniques as well as with the development of logging tools for drilling at high temperatures. Special emphasis was laid on the Continental Deep Drilling Program of the Federal Republic of Germany and its scientific aims.

MANTLE METASOMATISM, ELEMENTS, OXIDES, AND SILICATES. HIGH-PRESSURE PHASES WITH IMPLICATIONS FOR THE EARTH'S INTERIOR. - LING-GUN LIU & WILLIAM A. BASSETT. Edited by M.A. MENZIES AND C.J. HAWKESWORTH 1987. ACADEMIC PRESS INC. LTD. 24/28 OVAL ROAD LONDON NW 1 7 DX. Prix : £ 46; \$ 76.50.

Textbook of 472 pages with 22 contributors. Three major parts - Theoretical and experimental foundation - Metasomatism and enrichment in lithospheric peridotites and enrichment processes and basaltic volcanism.

An important contribution to the knowledge of mantle metasomatism.

L. DEJONGHE

THE FUNDAMENTALS OF PALEOHYDROGEOLOGY OF ORE DEPOSITS. By E.A. BASKOV. Translated from the Russian by POPEL, R.N.; VASILIEVA, I.I. 1987. 60 figs. VIII, 253 pp. 490 g. Hard cover DM 148.- Berlin-Heidelberg-New-York-London-Paris-Tokyo : Springer-Verlag ISBN 3-540-17234-3.

This book deals with the problems and methods of paleohydrogeology in relation to ore deposit studies. It presents a description of different techniques used in the course of structural-paleohydrogeological, paleohydrogeochemical and paleohydrogeothermal investigations. It also provides information on the regular, regional patterns of formation and subsequent distribution of ground water within different shells of the Earth. The main aspects of metal content of ground water and contemporary process of ore genesis are discussed. Ore deposits are classified according to paleohydrogeological conditions under which they were formed. The readers are acquainted with paleohydrogeological analysis of these conditions for different types of ore deposits, namely (1) ore deposits formed in artesian basins, in which sedimentary rocks were predominant both at the time of magmatic activity and in the periods free of this activity; (2) ore deposits formed in artesian, adartesian basins (and admassifs) characterized by extensive development of volcanic rocks and magmatic activity; (3) ore deposits that originated in hydrogeological massifs (and admassifs) in the process of formation of linear weathering crusts.

It should be noted that most examples or case histories to illustrate the text are taken from the Russian literature.

This book, which should be of great interest to geologists engaged in prospecting for and exploration and study of ore minerals, also includes 38 tables, 60 illustrations and a bibliography of 450 titles.

L. DEJONGHE