

Contents

Preface	v
COOK, P. J., SHERGOLD, J. H., BURNETT, W. C. & RIGGS, S. R. Phosphorite research: a historical overview	1
McCLELLAN, G. H. & VAN KAUWENBERGH, S. J. Mineralogy of sedimentary apatites	23
LUCAS, J., EL FALEH, E. M. & PREVOT, L. Experimental study of the substitution of Ca by Sr and Ba in synthetic apatites	33
NATHAN, Y. Humic substances in phosphorites: occurrence, characterization and significance	49
O'BRIEN, G. W., MILNES, A. R., VEEH, H. H., HEGGIE, D. T., RIGGS, S. R., CULLEN, D. J., MARSHALL, J. F. & COOK, P. J. Sedimentation dynamics and redox iron-cycling: controlling factors for the apatite-glaucinite association on the East Australian continental margin	61
HEGGIE, D. T., SKYRING, G. W., O'BRIEN, G. W., REIMERS, C., HERCZEG, A., MORIARTY, D. J. W., BURNETT, W. C., & MILNES, A. R. Organic carbon cycling and modern phosphorite formation on the East Australian continental margin: an overview	87
McARTHUR, J. M., & HERCZEG, A. Diagenetic stability of the isotopic composition of phosphate-oxygen: palaeoenvironmental implications	119
BALSON, P. C. Episodes of phosphogenesis and phosphorite concretion formation in the North Sea Tertiary	125
VAN KAUWENBERGH, S. J. & McCLELLAN, G. H. Comparative geology and mineralogy of the southeastern United States and Togo phosphorites	139
LAMBOY, M. Microbial mediation in phosphatogenesis: new data from the Cretaceous phosphatic chalks of northern France	157
LEWY, Z. Pebbly phosphate and granular phosphorite (Late Cretaceous, southern Israel) and their bearing on phosphatization processes	169
NATHAN, Y., SOUDRY, D. & AVIGOUR, A. Geological significance of carbonate substitution in apatites: Israeli phosphorites as an example	179
ABED, A. M. & FAKHOURI, K. Role of microbial processes in the genesis of Jordanian Upper Cretaceous phosphorites	193
GLENN, C. R. Depositional sequences of the Duwi, Sibaiya and Phosphate Formations, Egypt: phosphogenesis and glaucinitization in a Late Cretaceous epeiric sea	205
ZANIN, YU. N., ZVEREV, K. V. & SOLOTCHINA, E. P. Clay minerals and phosphorite genesis in the Upper Cretaceous of the northern Siberian Platform	223
FÖLLMI, K. B. Condensation and phosphogenesis: example of the Helvetic mid-Cretaceous (northern Tethyan margin)	237
ILYIN, A. V. & HEINSALU, H. N. Early Ordovician shelly phosphorites of the Baltic Basin	253
HOWARD, P. F. The distribution of phosphatic facies in the Georgia, Wiso and Daly River Basins, Northern Australia	261
DONNELLY, T. H., SHERGOLD, J. H., SOUTHGATE, P. N. & BARNES, C. J. Events leading to global phosphogenesis around the Proterozoic/Cambrian boundary	273
BRASIER, M. D. Phosphogenic events and skeletal preservation across the Precambrian–Cambrian boundary interval	289

CHOUDHURI, R. Two decades of phosphorite investigations in India	305
SISODIA, M. S. & CHAUHAN, D. S. The influence of magnesium ions during the formation of stromatolitic phosphorites of Udaipur, Rajasthan, India	313
Index	321