

DIFFERENT SPHERULE-PRODUCING EVENTS AND SPHERULE-BEARING HORIZONS

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By the micromineralogical and micropaleontological separation of different sediments micro-sized (10-500 micron diameter) rounded droplets, „microballs” spheroid forms, shelled or crusty built spherules occur. The origin of the spherules is very different: there are terrestrials (volcanic-, sedimentological-, microbiological-, bacterial- originated), others are impact-generated melted spherules of the terrestrial target rock by giant impact bombardment, there are some extraterrestrials (spherules in cosmic dust, chondrite-originated spherules from meteorite-ablation and disruption, spherules from dust collisions) and lot of the spherules are artificial (remains of rocket-fluid, spherules from different technologies: smelting furnace, cement-, glass-, ceramic-, painting producing and nuclear test produced). In different geological horizons the spherule-bearing rocks are important markers to compare the far founded sediments, as sometimes no special characteristic paleontological, sedimentological, mineralogical markers in any sediments. Especially the spherule-study of the boundary sections of the extinction events are very important as sometimes the local and regional paleoecological environment were far different and the geochronology of these sections is more complex because the lithostratigraphy and biostratigraphy sometimes different. Since the beginning (1993) of the spherule-research in Hungary we have found more thousand different spherules from different sediments from recent soil to Silurian rocks. The local-, regional- and global- spherule events are new tool for correlation. The migration of the artificial spherules is an important question of the pollution of our environment.