贵州关岭上三叠统瓦窑组中碳酸盐岩结核形成的生物作用 王尚彦^{1,2} 王 宁² 罗永明² 王红梅² 孙亚莉² (1.中国科学院地球化学研究所环境地球化学国家重点实验室 贵州 贵阳 550002; 2.贵州省地质调查院 贵州 贵阳 550004)

摘要:贵州省关岭县新铺乡附近的晚三叠世早期地层瓦窑组底部产具重大科学意义的关岭生物群。关岭生物群产 出地层中伴有大量大型碳酸盐岩结核。这些结核中部都有植物茎干,结核内的海百合、双壳、菊石、牙形刺等生 物化石含量明显高于结核周围的岩石,且有许多生物化石直接附着在植物茎干上。这类结核的形成,除化学沉积 作用外,还有生物作用的影响。海百合、双壳类和菊石类栖息在植物茎干上营假浮游生活,随着栖息生物量和化 学沉积物灰泥的增加,逐渐沉积在海底形成结核。

关键词:关岭生物群;结核;生物作用;贵州

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Biological processes for the formation of carbonate concretions in the Upper Triassic Wayao Formation of Guanling, Guizhou

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Abstract: The Guanling biota, which has important scientific significance, has been found at the bottom of the early Late Triassic Wayao Formation near Xinpu Township, Guanling County, Guizhou Province. There are abundant carbonate concretions in the strata in which the biota occurs. There are plant stems in the middle of the concretions. The contents of fossils such as crinoids, bivalves, ammonoids and conodonts in the concretions are notably higher than those in rocks around the concretions was affected by biological processes besides chemical processes, when they were being formed. Crinoids, ammonoids and bivalves dwelt on the stems and lived on pseudoplanktons. They were gradually deposited on the sea bottom with increasing biomass of the dwelling organisms and lime content, and at last concretions were formed.

Key words: Guanling biota; concretion; biological processes; Guizhou