

杭嘉湖平原第四纪地层高精度对比方法研究
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摘要: 通过标准孔古气候旋回宏观识别标志的研究, 并运用高分辨率层序地层理论, 解决了杭嘉湖平原第四纪地层划分和 200 余个钻孔的等时对比问题, 在此基础上制作了高精度对比的剖面图及准瞬时岩相古地理图, 为研究杭嘉湖平原第四纪地层划分、古地貌变迁提供了更为精确的资料。运用“基准面旋回”作为层序地层的划分依据, 以古土壤层及其可与之对比的暴露面和河流冲刷面为边界, 将平原第四系划分为 9 个亚层序, 并发现亚层序与气候旋回呈耦合关系。

关键词: 杭嘉湖平原; 第四纪; 气候旋回; 高分辨率层序地层; 基准面旋回

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High-resolution stratigraphic correlation method of the Quaternary
in the Hangzhou-Jiading-Huzhou plain

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Abstract: Through studying the macroscopic recognition mark of paleoclimatic cycles from standard stratigraphic holes and using the theory of high-resolution sequence stratigraphy, the authors solved the problems of stratigraphic division of the Quaternary and isochronous correlation of over 200 holes in the Hangzhou-Jiading-Huzhou plain. On that basis, the authors constructed high-precision correlative sections and a quasi-instant lithofacies-paleogeographic map, which offer more precise information for the study of the stratigraphic division of the Quaternary and palaeogeomorphologic change of the plain. Using the "base-level cycles" as the basis for the sequence stratigraphic division and treating paleosol layer and its correlative exposure surface and river erosion surface as the boundary, the authors divide the Quaternary of the plain into nine subsequences and find that the subsequences can be coupled with the climatic cycles.

Key words: Hangzhou-Jiading-Huzhou plain; Quaternary; climatic cycle; high-resolution sequence stratigraphy; base-level cycle