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## LITHOSTRATIGRAPHY AND GEOCHEMISTRY OF LOWER-MOST CAMBRIAN DEPOSITS ON THE SOUTHWEST EDGE OF THE NORTH CHINA PLATFORM

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This study focuses on the lithostratigraphy and geochemistry of lowermost Cambrian deposits on the edge of the North China Platform.

Approximately 10-20 meters of redlichiid-bearing, upper Lower Cambrian strata (Longwangmiaoan Stage) are present in the lower part of the Manto Formation (Xiang and Zhu, 1999). The Manto Formation is underlain by 10-30 meters of quartz sandstone and conglomeratic quartz sandstone on the southwestern edge of the North China Platform in Shaanxi, Shanxi, and northern Jiangsu provinces. The quartz sandstone unconformity lies on an erosion surface developed on Archaean granite-gneiss; this is a basal drift deposit containing kame and moraine sediment.

In the center part of the North China Platform, the lithostratigraphy of the lowermost Cambrian is different from the southwestern edge of the North China Platform. It consists mainly of thick dolomite (about 5-10m thick), interbedded with flint nodule and chert breccias, some time with chalice in Shandong, and is overlain by the redlichiid-bearing the Manto Formation, and overlies on an erosion surface developed on Archaean granite-gneiss.

The redlichiid-bearing, lower part of the Manto Formation (Xiang and Zhu, 1999), in the most place of North China Platform is consists mainly of purple and yellow shale, and is overlain conformably by the Maozhuang Formation. The lower part of Manto Formation contains the *Weijiaspis* and *Redlichia murakamii* trilobite zones.

The quartz sandstone has been given different names in different places, they are mostly conformably overlies by the lower part of Manto Formation, but sometime, we can find 0-0.5m thick weathering product between the quartz sandstone and the lower part of Manto Formation. So, some people think the quartz sandstone is in parallel unconformity with the lower part of Manto Formation. The lowermost part of this quartz sandstone contains glacial transportation deposits on the southwestern edge of the North China Platform in Shaanxi.

This research is based on data collected from six Cambrian sections in Shaanxi, Shanxi,

the west side of Beijing, Shandong, and Liaoning. Based on the lithologic, biostratigraphic, and geochemical evidence, we correlate the lowermost Cambrian quartz sandstone and conglomeratic quartz sandstone of North China with the Zabriskie Quartzite of the lower part of Dyeran Stage (upper part of the Lower Cambrian) in the section at Emigrant Pass in North America.