

Cretaceous terrestrial deposits in China

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As an important part of epidermic system, the terrestrial deposits may give a good response to major geological events in the Cretaceous epidermic system. This article is a review of the geological background, paleogeography, paleoclimate, basin evolution and sedimentary characteristics in China through the Cretaceous, in order to provide a comprehensive understanding for interested researchers. During Berriasian–Hauterivian, red-mainly fluvial and shallow lacustrine deposition developed under arid and semi-arid climate in western China when eastern China had been occupied by “East Plateau”. During Barremian–Albian, coal-bearing deposition occurred to the north of Yanshan Mountain under wet and warm climate. However, red-mainly fluvial and shallow lacustrine depositions were prevailing in most of south to Yanshan Mountain except for basins where seawater could enter and caused green-mainly deposition. During Cenomanian–Santonian, high land uplift occurred in northwestern China. Red-mainly deposition with developed alluvial plains occupied southwestern China and South China when the Songliao Basin was filled by black deep lacustrine mud shale caused by transgression. Red-mainly deposition under arid and semi-arid climate occupied all basins in China during Campanian–Maastrichtian.