Geophysical Research Abstracts
Vol. 15, EGU2013-8480, 2013
EGU General Assembly 2013

Lunar Tectonic Structures Detection and Research on Geotectonic Evolution of Lunar Typical Region

Jianping Chen (1,2), Shujun He (1,2), Ke Li (1,2)

(1) School of Earth Sciences and Resources,China University of Geosciencess(Beijing),Beijing100083, China (3s@cugb.edu.cn), (2) Land Resources Information Development and Research Key Laboratory of Beijing, Beijing100083,China

Abstract: Geologic tectonic elements on the lunar surface typically include ring structures, linear structures, geologic body structures and large basin structures. The most widespread geologic tectonic elements on lunar suface are ring structures.Due to the great number,large variety of ring structures and its fomation processes were along with the evolution of the entire lunar geology,this lunar surface structures record ratively good the transformation processes and types of lunar surface landforms over time, and the history of a planet. This paper interprets the tectonic elements in LQ-4 region, the study area, and statistically analyzes the typical structures there with the data from CE-1, Clementine, LRO and Lunar Prospector missions; it also identifies the mineral components, defines the period of the mare basalt activities within the study area, divides the tectonic units and clarifies the major tectonic events and evolution sequence in the study area according to geomorphology, material components and tectonic element distribution.
Key Words: Lunar; Tectonic Elements; Tectonic Units; Evolution; LQ-4 Region