

PPS003-05

Room:202

Time:May 26 15:30-15:45

Formation analyses of terrestrial and extraterrestrial materials by carbon-bearing textures at various impact events

Yasunori Miura^{1*}

¹Yamaguchi University

The present study is summarized as follows:

1) Carbon element is related with material changing driving force at any impact and shock wave processes on the solar system bodies of the Earth, the Moon, Mars and Asteroids.

2) Carbon-bearing materials can be found impact craters on the dry lands and water-bearing ocean impacts on the Earth.

3) Multi-events of the Earth, Mars and the Moon can be analyzed by formation of carbon-bearing textures, which are characteristic material indicators of impact growth reaction with various conditions.

4) Meteorites formed at airless asteroids show various carbon-bearing textures by impacts on vacuum extraterrestrial locations.

5) The Moon show carbon-bearing compositions and features on polymict breccias during impacts on the airless Moon and asteroids, together with solar wind activity.

6) Germany Ries crater with carbon-bearing data also in drilled samples are relicts of limestone rock by impact.

7) Ocean-impacts on active Earth planet can be analyzed by carbon- or chlorine (halite-like)-bearing grains on impact samples of the KT and PT geological boundaries (Europe and China), impact glass (Libyan LDSG glasses) and broken Congo diamonds.

8) The present data of multi-events indicator can be applied unknown multi-event drilled samples of the Takamatsu (Kagawa) buried broken crater by near-crater bottom samples, and the Akiyoshi (Yamaguchi) breccias limestone blocks transported by buried blocks under the continents at ocean-impact remnants at southern separated places.

Keywords: carbon-bearing texture, impacts, material indicator of growth, meteorite impact, ocean-impact, carbon and chlorine