

Texture of Carbon-bearing materials by dynamic formation from Akiyoshi, Shimonoseki, Hamada and Takamatsu, Japan

Yasunori Miura^{1*}

¹Yamaguchi University

1. Introduction

There are no reports on fine carbon-bearing materials in Earth interior minerals. The present paper reports of nano-sized carbon-bearing textures by electron micrographs at drilled deep samples from Akiyoshi and Takamatsu, Japan, and surface basaltic rocks from Shimonoseki and Hamada, Japan.

2. Fine-carbon-bearing textures from terrestrial rocks

Nano-sized carbon-bearing textures are found at Akiyoshi and Takamatsu drilled samples, and Shimonoseki and Hamada surface of basaltic rocks

3. Formation processes

1) Nano-sized carbon-bearing textures found at Akiyoshi limestone breccias and Takamatsu drilled breccias are considered to be dynamic reaction of meteoritic impacts on sea-water. This is because there are carbon-sources at shallow sea bottom and halite-related solid from sea-water.

2) Similar nano-sized carbon-bearing textures found at Shimonoseki, Hagi and Hamada basaltic rocks with many cavities are considered to be dynamic reaction of volcanic explosion with buried limestone at high temperature near sea-water. This is because there are Ca, Na Cl and C-bearing fine grains at shallow sea bottom with carbonate rocks and halite-related solid from sea-water.

4. Summary

The present study indicates that there are new nano-sized carbon-bearing materials at Akiyoshi and Takamatsu drilled samples and Shimonoseki and Hamada basaltic rocks as quenched remnants by electron micrographic observations.

Keywords: nano-carbon-bearing texture, dynamic formation, quenched sea-water reaction, Akiyoshi Takamatsu drilled samples, Shimonoseki Hamada basalts, Electron-microscopy