Carbonaceous compounds in granitic rocks

Yoshikazu Sampei [1], Yoshihiro Sawada [1], Takako Matsuno [1]

[1] Geoscience, Shimane Univ

Carbonaceous compounds, which have a potential to generate hydrocarbon, were found in Granitic rocks. The content of carbonaceous compounds were relatively high in the S-type granite, medium in the I-type ilmenite-series granitoid, and low in the I-type magnetite-series granitoid. The extracted fraction from the compounds do not contain normal alkane with regular pattern and biomarker as shown in petroleum. The stable carbon isotope ratio of the compounds from bulk granite is similar with that of methane from thermally decomposed oil. These results suggest that the carbonaceous compounds could have made by polymerization from methane in the high temperature and high pressure.