

Boundary of Sakamotozawa formation, Nagaiwa formation and Kanokura formation in a part of Hikoroiti district

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Sakamotozawa formation in a part of Hikoroiti district in Ofunato city, Iwate prefecture consists of basal conglomerate, slate rock, limestone and sandstone in the Permian early period.

Sakamotozawa formation is in contact with clino-unconformity of Nagaiwa formation(Mid Carboniferous) and conformity of Kanokura formation(Middle Permian).

In this research, to add a new interpretation to the previous research, we decided more accurate boundary of Nagaiwa, Sakamotozawa and Kanokura formation, and conducted a survey.

As a result, the sandstones in some areas considered to be Nagaiwa and Kanokura formation showed the very similar Ti-Nb ratio to sandstones of Sakamotozawa formation.

In addition, we measured undissolved residue of the muddy limestone from Sakamotozawa formation then it was identified that the amount of Cr-Ni contained in samples are particularly rich rather than the general sandstones of Sakamotozawa formation.

This suggests that there was a provenance which abundant Cr-Ni existed like serpentinite during sedimentation of limestone.

Keywords: limestone, Sakamotozawa formation, Nagaiwa formation, Kanokura formation, Ofunato