

Whole-rock chemistry of Cretaceous intermediate to mafic plutonic rocks in the Chugoku district, Southwest Japan.

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To clarify the genetic differences between the plutonic rocks of the Ryoke and San'in belts, we have performed whole-rock chemical analyses of the rocks, in particular intermediate to mafic rocks. The analyses yields the results below: 1) compositional trends of LILE and ASI values of the two belts are similar to each other; 2) On the Pearce diagram, both rocks are plotted on the same region of Volcanic Arc Granite; 3) Some mafic rocks from the San'in belt show high Sr/Y ratios and high Na₂O contents suggesting the Adakitic characters. The above results indicate that 1) contributions of sedimentary rocks for both magmas are not distinct; 2) tectonic settings in both magmatisms would be almost the same; 3) the plutonism of the San'in belt was initiated from adakitic magmatisms.