

Studies on the development of accretionary prisms and arc magmatism [Keywords: Geology, Tectonics, Geochemistry, Geochronology, Paleo-environment] Professor: Ryo Anma

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Analogue modelling of accretionary complex (above)

Shape and intensity of flow structures defined by alignment of orthoclase megacrysts inside the Yakushima pluton, SW Japan (left)

> Flow fabrics defined by anisotropy of magnetic susceptibility obtained from the Cocos plate oceanic crust and lateral migration of magmas in the spreading ridge (left)



Rain-water sampling in West Asian countries and the rain-water composition

Content:

My main interest is in the processes of continental crust formation at subduction zones, especially those formed in ridge-subduction environment. My interests extend to the development of accretionay prisms and distribution of seismogenic faults, accretion processes of oceanic crust at spreading ridges and mechanisms of magma intrusion. Fieldwork based on structural geological methods is my main approach to understand these processes, but I also take paleomagnetic, geochronological, geochemical approaches. My focal area for this study is in Southwest Japan and Chile-ridge subduction zone. Utilizing IODP drilling ships and research vessels and submersibles run by JAMSTEC, I studied structures and development of accretionary prism in the Nankai trough, sedimentation nearby seismogenic zones in the Chile margin, oceanic crust accretion processes off Panama. More recently, I run an archaeological project on development of urban mine in the early Mesopotamian cities and its relation to the environmental changes surrounding the cities.

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