口頭講演 | R8：変成岩とテクトニクス

2025年9月10日(水) 14:00 ~ 15:15 口頭発表会場 A (2番教室)

R8：変成岩とテクトニクス

座長:東野 文子(京都大学)

15:00 ~ 15:15

[R8-13] Preliminary petrological constraints on the tectonic evolution of the southeastern Kivu region (eastern DR Congo, Central Africa)

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キーワード：Meta-igneous rocks、Ruzizian basement、Kibaran belt、Granitoids、Kivu region

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The Congo and Tanzania cratons, alongside the Bangweulu block in Central Africa, have witnessed during Proterozoic times the development of mobile orogens between them, among which the Kibaran and Ubendian belts. Specifically, the Kibaran belt is a Mesoproterozoic orogen split into two main domains by the NW-striking Paleoproterozoic Ubendian belt. The latter is hypothesized to extend northward into the underexplored Ruzizian belt, a region northwest of Lake Tanganyika. Despite being a key piece in the Rodinia puzzle, the geodynamic evolution of the Kibaran belt remains loosely constrained, resulting in conflicting interpretations. Furthermore, very little is known about the tectonic role of the postulated basement. In this context, petrological and geochemical constraints from igneous rocks and protoliths are very crucial as they would further our understanding of the overall tectonic evolution of the region.

Preliminary field and petrography data indicate the study area is mainly composed of gneisses, granitoids, along with some metasedimentary layers and metabasites. Biotite (Bt) orthogneisses are widespread. Garnet (Grt)-Bt-sillimanite (Sil) granulitic gneiss is also present, though not extensively. Other rock types include metabasic layers (amphibolites along with meta-dolerite), and granitoids: Grt-Bt granite, Bt-granite, Bt-muscovite (Ms) granite, Bt-Ms pegmatite, and meta-tonalite. A nearly consistent NW to NNW structural trend is observed across the area. Further, gneisses display migmatitic textures at some locations as well as quartzo-feldspathic layer-parallel intrusions, indicating a melt generation coeval with ductile deformation. Similar findings are reported from the Ubendian belt, Ruzizian window in SW Rwanda, or directly from Kibaran components. For the latter, where S- and A-type magmatism is a distinctive feature, the precise tectonic setting of their emplacement is still elusive, debated between subduction-collision and intracratonic models.