

*THE AGES OF THE KABANGA NORTH AND KAPALAGULU INTRUSIONS, WESTERN TANZANIA:
A RECONNAISSANCE STUDY*

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Abstract

The Kabanga North and Kapalagulu intrusions form part of a >500-km belt of intrusions within the Kibaran orogenic belt of central Africa. Some of the intrusions within the belt host important ore deposits, notably Ni sulfides at Kabanga and Ni laterites at Musongati and Kapalagulu. Despite the economic significance of the intrusions their ages have remained unclear. Here, we present SHRIMP II U-Pb zircon ages, interpreted as magmatic ages of crystallization, for the Kabanga North intrusion (1403 ± 14 Ma) and for the Kapalagulu intrusion (1392 ± 26 Ma). These data, along with other geochronological and petrological data, support a model of a broadly coeval and cogenetic suite of mafic-ultramafic intrusions throughout the Kibaran orogenic belt, from northwest Tanzania through Burundi, and possibly as far south as the Democratic Republic of Congo.