Geophysical Research Abstracts
Vol. 14, EGU2012-7309, 2012
EGU General Assembly 2012

Evolution of the Congo Basin

U. A. Glasmacher (1), F.U. Bauer (1), S. Kollenz (1), and D. Delvaux (2)

(1) University Heidelberg, Institute of Earth Sciences, Institute of Earth Sciences, Thermochronology and Archaeometry, Heidelberg, Germany (ulrich.a.glasmacher@geow.uni-heidelberg.de, 00496221545503), (2) Royal Museum for Central Africa, Department of Geology and Mineralogy, Belgium

The Congo Basin is one of the largest basins in the World with very little knowledge on the geological evolution as well as the oil and gas potential. In the past, oil seeps are recorded in the central part of the basin. Four sides in the Congo basin have been drilled so far. The cores of the two drill sides Dekese and Samba are located at the Musée royal de l'Afrique Centrale, Belgium. In a reconnaissance survey, we sampled both drill cores in a nearly even spacing of $\sim$ 150 m covering the whole stratigraphy from Albian to Proterozoic. The red and green to grey sandstone samples were prepared by usual heavy minerals separation technique. Most of the samples revealed enough apatite and zircon grains for the two thermochronometric techniques fission track and (U-Th-Sm)/He. The time-temperature (t-T) evolution for the two drill locations were modelled by using the determined thermochronological data within the software code HeFTy. We tested various geological evolutionary constrains. Both techniques provide us information on the thermal and exhumation of the possible source area and on the drill location by themselves.