CENTRAL ASIA - A KEY AREA FOR UNDERSTANDING PLATE TECTONIC PROCESSES

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Central Asia, comprised of Mongolia and adjacent eastern and southern regions is a key area for understanding not only open regional but also open theoretical questions of geodynamics as is demonstrated by the presence of many folded systems, a complex system of terranes and tectonic units and a unique suite of huge quantities of often multiphased in many cases Mesozoic intraplate magmatites of the Mongol-Okhotsk Belt. The associated mineralizations have often been studied in great detail. As in Mesozoic times collision processes took place thousands of kilometers further South and as the quantity of these magmatites means also the displacement of large volumes within the deeper crust/upper mantle and the subsequent erosion/resedimentation of overlying deposits, syntheses leading to an understanding of this magma generation need a quantitative assessment of isotopic and geochemical signatures, palinspastic reconstructions, quantitative analyses of thermal stability within the crust and the syntheses of works focusing on the deeper crust in the area of North China.This talk reviews existing syntheses and opposing concepts and invites to the formation of a long-term interdisciplinary and international initiative as (a) a wealth of background data exists and (b) recent advances in analytical and instrumental tools enable a well-focused multidiciplinary integration of existing field data, geochemistry, reconstructions and large-scale modeling enabling thus new integrated concepts of magma formation and tectonic processes.