



Sedimentation rates in the coastal basins of Southern and Eastern Africa: a bimodal pattern

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The sedimentary budgets in the passive margin basins represent an archive of past uplifts and topographies over the continent, and are therefore a key to constrain the kinematics of the hinterland uplift. In this study, we use data from wells drilled in the coastal basins of Tanzania and Southern Mozambique to quantify the sedimentary budgets for different time intervals since the Cretaceous. The results show two major uplift events of the East and South African Plateaus: the first in the Late Cretaceous and the second in the Oligo-Miocene to Recent. They are separated by a period of warm humid climate and low denudation rate in Paleocene-Eocene times. Similar patterns of sedimentation rates are observed in the Congo and Zambezi basins. This bimodal pattern is also observed in several aspects of the African geology: periods of AFTA denudation, igneous rocks ages, periods of sediment progradation on the continental margins, and turbidite sand developments, with some exceptions.