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## Evidences for Late Paleozoic and Mesozoic Basaltic Magmatism in Southwestern Cameroon and Implications for Correlations between the Gulf of Guinea in Africa and Northeast Brazil

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Late Paleozoic and Mesozoic basaltic dikes were recently identified in Southwestern Cameroon in a ca. 200 km corridor of NE-SW trend that includes the Cameroon Line and corresponds, in a prebreak-up reconstitution of Western Gondwana, to the Pernambuco-Alagoas and Transversal domains of the Borborema Province in northeastern Brazil. The basalt dikes are olivine-bearing tholeiites, less enriched in trace and rare earth elements than Cenozoic basalts of the Cameroon Line situated in the same corridor. K/Ar and  $^{40}\text{Ar}/^{39}\text{Ar}$  ages for representative dikes yielded two sets of ages bracketed at 421–404 Ma and 215–149 Ma. If the Mesozoic basaltic dikes are linked to the opening of the Southern Atlantic Ocean, Late Paleozoic ages obtained for some of the studied dikes do not correspond to any previously identified tectonic event in the region. The origin of these Late Paleozoic basaltic dikes is connected to a much larger

area of lithospheric thinning and mantle melting related to the opening of the South Atlantic Ocean bordering Central Africa. The absence of Late Paleozoic dikes in counterparts region of Northeastern Brazil before West Gondwana break-up is attributed to a lesser tectonism during the Precambrian of the Pernambuco corridor relatively to corresponding belts on the African side.

### References

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