



Early Cambrian Post-collisional volcanosedimentary Rey Bouba greenstone belt in northern Cameroun: LA-MC-ICP-MS U-Pb geochronology and implications for the geodynamic evolution of the Central African Fold Belt (CAFB).

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The Rey Bouba Greenstone Belt (RBGB) is a greenschist volcanosedimentary basin representing the youngest accretion event that characterized the geodynamic evolution of the CAFB of Northern Cameroun. LA-MC-ICP-MS U-Pb detrital zircon data indicate that both older PP to MP and younger NP to Early Cambrian sources from ca 2000 to ca 540 Ma, with main provenance being zircon grains from Cryogenian igneous rocks (between ca 850 and ca 650 Ma) were involved in the formation of the RBGB basin. Considering the age of metamorphism inferred from high pressure granulites at ca 600 Ma within the CAFB of northern Cameroun as the most direct evidence for the timing of continental collision, we conclude that the deformation associated with migmatites and post-collisional granites which fed the Rey Bouba basin mostly with NP zircon lasts until post 540 Ma, in correlation with the final amalgamation of the Gondwana Supercontinent during Latest Neoproterozoic-Earliest Cambrian.

Therefore, the RBGB may represent the youngest post-collisional metavolcanosedimentary basin within the CAFB.