## **Supplementary material**

## Mesozoic and Cenozoic deformations in the Raggyorcaka area, Tibet: Implications for the tectonic evolution of the North Qiangtang terrane

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Table S1. Statistics of N-S buckle folds in the North Qiangtang terrane and the South Qiangtang accretionary complex belt.

Geographic location	Geometric characteristics	Strata of folds	Reference
Shuangquan Lake, Xinyue Mountain	Attitude of two limbs of anticline in Shuangquan Lake: 280°∠70° and 95°∠55°, hinge 7°∠7°, interlimb angle approximately 60°; Xinyueshan exhibits a series of anticlines and synclines, along with N-S-trending thrust faults.	Middle Jurassic clastics	Wang et al., 2004
Xinyue Mountain south of Yinlong Lake, Yanlinghe southwest of Bandao Lake, Qirong Mountain in Shuanghu	Upright horizontal parallel folds with predominant axial orientations of 350°-45°, interlimb angles of 90°-140°, and hinge zone widths of 0.5-3 km.	Middle Jurassic carbonatite and clastics	Yong et al., 2004
Shuangquan Lake, Jinxing Lake Maoyingzui, Longwei Lake, Tuonamu, Zuerkengwula Mountain, Yicangma River, Xiangyang Lake	Upright horizontal parallel folds, with predominant axial orientations of 350-30°, interlimb angles of mainly 100-154°, and hinge zone widths of 1-8 km. The folds are superimposed on early nearly E-W-trending anticlines and form dome structures.	Middle -Upper Jurassic carbonatite and clastics	Jia et al., 2006
Raggyorcaka, Mayer Kangri	Accretionary complex: upright horizontal parallel folds with predominant axial orientations of 0-15°, interlimb angles of 110-120°, and hinge zone widths of 20-1300 m.  North Qiangtang terrane: upright plunging or upright horizontal parallel folds with predominant axial orientations of 5-30°, interlimb angles of 120-150°, and hinge zone widths of 20-1000 m.	Accretionary complex belt: Late Carboniferous-Middle Triassic metamorphic rocks; North Qiangtang terrane: Late Permian-Middle Triassic carbonatite and clastics, and Miocene-Early Pliocene clastics	This paper

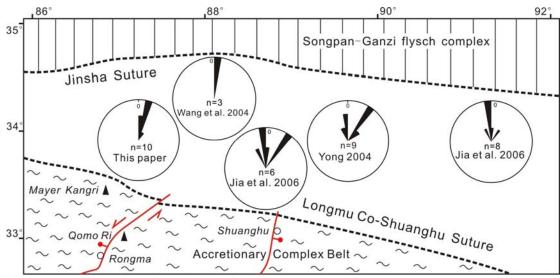


Figure S1. The location of N-S buckle folds in the North Qiangtang terrane and rose diagrams of hinges. The folds mostly exhibit as the upright horizontal type and is evenly distributed in the basin, indicating that a contraction deformation once occurred in a nearly E-W direction.