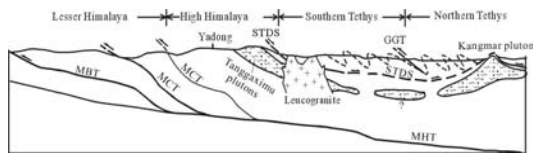


# SHRIMP zircon geochronological constraints on a Pan-African orogeny in the Yadong Area, Southern Tibet

W.C. LIU, Z.G. ZHOU, X.X. ZHANG AND X.G. ZHAO

China University Of Geosciences, Beijing, China;  
(liuwenc@263.net)

The Yadong area in southern Tibet is part of the High Himalayas [1] between the MCT and the STDS (see Figure). Precambrian basement rocks in this area are re-deformed by STDS, have developed foliation and lineation, and are unconformably overlain by the Ordovician cover sequence, similar to that recorded in the Kangmar dome of Southern Tibet [2] and the Jianglang dome of the eastern margin of the Tibetan plateau [3].



The Tanggaximu and Tongbashi plutons, intruding the Yadong basement rocks, are granodiorite and adamellite, respectively, with foliations. Zircon separates from the Tanggaximu and the Tongbashi plutons are typical of igneous origin with rhythmic zoning. They are dated using the SHRIMP zircon U-Pb method. Nine of the total 12 analyses from the Tanggaximu pluton give a mean  $^{206}\text{Pb}/^{238}\text{U}$  age of  $513 \pm 10$  Ma, and 11 of the total 14 analyses from the Tongbashi pluton give a mean  $^{206}\text{Pb}/^{238}\text{U}$  age of  $502 \pm 9$  Ma. Both these new ages suggest that these plutons were simultaneous with the Kangmar pluton that has an age of  $500 \pm 50$  Ma [2]. These new ages suggest an extensive magmatism in the Yadong area and the extending of the Pan-African orogen from the Yadong area of the High Himalayas to the Kangmar area of the Northern Tethys.

## References:

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