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三江地区义敦岛弧碰撞造山过程:花岗岩记录 [点此下载全文](#)

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摘要:

义敦岛弧碰撞造山带是特提斯—喜马拉雅巨型造山带中的一个复合造山带。本文利用义敦岛弧碰撞造山带数据,结合岩石地球化学特征,建立了造山带花岗岩的时间坐标。初步识别出4套不同成因类型的花岗岩,即印支期花岗岩、燕山晚期A型花岗岩和喜马拉雅期花岗岩。据此,再造了造山带的形成过程与演化历史:印支期的大规模形成义敦火山岩弧;大约自206Ma始,发生弧—陆碰撞,伴随岛弧地壳挤压收缩和剪切变形,发育同碰撞花岗岩(a),岛弧碰撞造山带发生造山后伸展作用,形成A型花岗岩带;喜马拉雅期发生陆内造山作用(65—15Ma),岛弧规模走滑平移,伴随喜马拉雅期花岗岩的侵位和拉分盆地的形成。

关键词: [花岗岩](#) [成因类型](#) [时间坐标](#) [形成背景](#) [岛弧碰撞造山过程](#) [三江地区](#) [岩浆事件](#)

Collision-Orogenic Processes of the Yidun Arc in the Sanjiang Region: Record of Granite
[Fulltext](#)

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Abstract:

The Yidun arc collision-orogenic belt is a composite orogenic belt of the giant Tethys-Himalayan orogenic belt. In combination of 43 isotopic ages of 29 granite bodies and their petro-geochemistries, the paper estimates the formation and evolution of the orogenic belt. Four genetic types of the granites were identified as follows: early Yanshanian syn-collision granites, late Yanshanian A-type granites and Himalayan intra-continental granites. The formation and evolution were reconstructed. A large-scale Indosinian subduction-orogenesis led to magmatic arc (238-210 Ma). From about 206 Ma there occurred arc-continent collision accompanied by compression and shearing deformation of the arc crust and development of syn-collision granites. In the late Indosinian post-orogenic extension came into action and resulted in the generation of A-type granites. During the Himalayan intra-continental orogenic movement a large-scale strike-slip thrusting induced the intrusion of granites and the formation of pull-apart basins.

Keywords: [granite](#) [genetic types](#) [time coordinate](#) [formation environment](#) [arc collision-orogenic belt](#)