

SHRIMP ZIRCON DATING OF GRANITOIDS FROM MYANMAR: CONSTRAINTS ON THE TECTONIC EVOLUTION OF SOUTHEAST ASIA

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Myanmar occupies a key position in the tectonic evolution of Southeast Asia. However, there is almost no modern geochronology for this region. In this contribution we present SHRIMP zircon dates for granitoids from the Shan Scarp (Mogok Metamorphic Belt), Tenasserim Region (Mergui Archipelago) and Central Valley (Western Myanmar) regions of Myanmar. The oldest ages obtained were Jurassic protoliths for Eocene-Oligocene gneisses and anatectic granitoids in the Mogok Belt. Ages between 120 and 80 Ma for I-type granitoids in the Mogok Belt, Mergui Archipelago and Western Myanmar confirm that an up to 200km wide mid Cretaceous magmatic belt extended along the Eurasian margin from Tibet to Sumatra. Fractionated I-Type granitoids were emplaced in the Mergui Archipelago (and adjacent Thailand) in the latest Cretaceous to Early Eocene. These granitoids formed a wide convergent margin magmatic belt as the Indian plate rapidly approached Eurasia. Deformation, high-grade metamorphism and local anatexis occurred in the Mogok Belt during the Eocene-Oligocene as collision between India and Eurasia initiated extrusion of Indochina and northward movement of Western Myanmar. Arc magmatism continued in Western Myanmar with emplacement of granitoids in the Central Valley. Deformation, uplift and granitoid magmatism occurred in the Mogok Belt during the Early Miocene during northward movement of Western Myanmar.