

行政院國家科學委員會專題研究計畫成果報告

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活動及其大地構造意義(II)

Geochemical characteristics and tectonic significance of magmatism around the Ailao Shan-Red River shear zone (II)

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一、中文摘要

本專題研究計畫自第一年執行以來，即與 CREATE (I) 其他子計畫密切配合，且分別和越南及大陸學者合作，已針對出露於西藏東部、雲南和越南北部等地、哀牢山斷裂帶附近的各類岩漿岩進行了系統性的定年學、岩石學、主量與微量元素地球化學及放射性同位素地球化學等研究。這些研究結果，已/將陸續在國內、外知名的學術期刊或會議上發表，其中包括一篇探討西藏東部高鉀岩漿活動及西藏高原的異時隆升的論文，刊登在 1998 年 8 月 20 日當期的 Nature 雜誌上，引起國際學界的重視。此外，並已搜集到北越黑河地區的基性-超基性岩和馬河地區的蛇綠岩等岩樣，經由第二年計畫野外考察工作的進行，也對雲南哀牢山南側的雙溝蛇綠岩有了更進一步的認識；目前正就上述研究成果撰寫論文發表中。值得特別在此一提的是，由於馬河蛇綠岩的相關研究工作的推展，使 CREATE 研究團隊不論在印支與華南兩板塊的縫合歷史乃至所謂的“印支造山運動”及東部古地中海演化等東亞地體構造的重大問題上，都獲得新的突破；這些新的研究成果，預期將可在近期內在國際地學期刊正式發表。

Abstract

This report is to report the first year result of a three-year research project that belongs to the joint CREATE (I) project. In the first year, through collaboration with Vietnamese and Chinese colleagues, we have investigated and collected late Paleogene highly potassic igneous rocks from NW Vietnam, Yunnan and eastern Tibet. These rocks have been dated by Ar-Ar method and petrochemically determined for their major and trace element and Sr-Nd isotopic compositions. The results have been presented in several scientific meetings and international journals including one article published in Nature (August 20, 1998). In the second year, the project was focusing on studying the Paleo-Tethyan ophiolites from the Song Ma area (NW Vietnam) and Shuanggou, south of the ASRR (Yunnan). This work led us to better understand the Indosinian Orogeny and the evolution of Paleo-Tethys. The new results will be

submitted shortly to international journals for publication.

二、緣起與目的

請參閱本專題研究計畫計劃書。

三、本研究計畫已/將發表之相關研究成果：

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