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Book review

B. Bonin: Ring complex granites and anorogenic magmatism. Amsterdam: Elsevier 1986. 188 pp., (ISBN 0-444-01075-0), US \$ 45.00.

The numerous types of granites can roughly be subdivided into orogenic and anorogenic members. According to Martin and Piwinski (1972) granites found in zones of crustal shortening and plate convergence are named orogenic, whereas granites associated with zones of extension or of distension in plate interiors or at divergent boundaries are called anorogenic. In this book the author defines the general features of anorogenic complexes as they occur throughout the world. These features had been identified by detailed comparative studies of almost a dozen Corsican examples combined with anorogenic complexes around the world.

The list of contents begins with structures and mode of emplacement, geometry of the complexes, ascent and cooling of liquids in the ring dykes, and mode of ring emplacement, and initiation of anorogenic structures (Chapter 1). Chapters 2 and 3 deal with the mineral and textural compositions and the geochemical data, respectively. Beside the description of the main minerals as well as the discussion of the alkaline magmatic series with basic and acid rocks, trace element evidence is also given. The origin and evolution of anorogenic alkaline magmatism are the main themes of Chapter 4. It includes a discussion on the rise of anorogenic alkaline magma and the role of contamination,

evolution of magma, and postmagmatic evolution of the rocks. Here, the metallogenic processes bound to anorogenic magmatism are also shortly discussed. General conclusions are given in Chapter 5; a summary may be given in two sentences: The origin of all anorogenic magmas lies in the mantle, and the crust plays an important role in the elaboration of the final crystalline rocks.

Bonin's book is a fundamental compilation on the characteristics of anorogenic granites and their genetic evolution. Due to his long experience with granitoid rocks the author skillfully knows how to give both a comprehensive, but at the same time short overview of anorogenic magmatism. Though it is noticeable that the original edition was already published in 1980, the English edition of 1986 is an updated and revised version. Nevertheless, numerous new publications could not more be taken into consideration. Thus, for example, the problem of granite emplacement (like diapirism) is not discussed comprehensively. There is a lack of new theoretical and experimental data, in general the references end in 1979. Although important new developments could not be taken into account, on the whole this book is an important and helpful review for all interested in anorogenic granites and ring complexes. It is to be hoped that B. Bonin will consider the results on granite investigation of the last decade in a subsequent revised and updated issue.

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