

BOOK REVIEW

SPEZIELLE PETROGRAPHIE DER ERUPTIVGESTEINE, EIN NOMENKLATUR-KOMPENDIUM IN AUFTRAGE DER DEUTSCHEN MINERALOGISCHEN GESELLSCHAFT. W. EHRENREICH TRÖGER. 360+V pages. Price bound, 20 RM. Deutschen Mineralogischen Gesellschaft e.V., Berlin W 35, 1935.

Many American petrographers will be gratified to learn from this book that German as well as American petrographers are trying to work out a system of rock classification that will be quantitative, and at the same time not too elaborate and that will involve as few changes from the Rosenbusch classification and nomenclature as possible. I, for one, hope that it is not looking for the millenium to expect in the near future a general agreement among petrographers the world over on some relatively simple quantitative rock classification. Perhaps the time is not quite here but may petrographers soon get together and agree on some scheme of classification.

The author divides rocks into 32 families following the usual scheme but giving quantitative limits as shown in the following table:

	ALKALI FELDSPAR	ALKALI FELDSPAR + PLAGIOCLASE	PLAGIOCLASE	ALMOST LACKING FELDSPAR
<i>Quartz</i>	Aplite granite (hololeucocratic)	Alkali-lime granite (orth. \geq plag.)	Quartz diorite	Peracidite (hololeucocratic)
	Alkali granite (leucocratic mesotype)	Granodiorite (orth. < plag.)		
<i>Neither quartz nor foids</i>	Aplosyenite (hololeucocratic)	Lime-alkali syenite (orth. > plag.)	Anorthosite (hololeucocratic) Diorite (an < 50) Gabbro-diorite (an = 50) Gabbro (an > 50)	Pyroxenite Amphibolite Garnetite Micaite Peridotite Melalitolite Silikotelite
	Alkali syenite (leucocratic)	Monzonite (orth. = plag.)		
	Lusitanite (melanocratic mesotype)	Mangerite (orth. < plag.)	Tilaite (melanocratic)	
<i>Foids</i>	Nepheline syenite (holo- or leucocratic)	Theralite (orth. \geq plag.)	Essexite (plag. \pm > orth.)	Fergusite (leucite) Ijolite (nepheline) Tawite (sodalite) Turjaite (melilite + foids)
	Shonkinite (melanocratic mesotype)			

The main part of the book is taken up with brief descriptions of all the rock names that have been proposed. These are arranged under the families to which they belong. The descriptions give references to the original or chief literature and for the most part follow the original description. They give the original locality or a typical example of occurrence, the magma provinces in which this rock is found—Atlantic, Pacific, or Mediterranean—, the quantitative mineral composition of type material, a chemical analysis where available, the position in Niggli's and the C. P. I. W. systems, synonyms, and varieties. Many new Rosival estimates of the mineral composition were made by the author.

At the end a list of synonyms and doubtful species is arranged alphabetically. An index enables one to locate any name in the text. A table for determining the position of a rock is given, a table of Niggli's magma types, and tables of analyses of minerals from various rocks.

The author seems to favor the rather haphazard method used in the past in naming rocks in which an endless number of names can be proposed for rocks with textural, mineral, or other differences. Any experienced field geologist knows that in any large area of igneous rocks there is likely to be a large variety of rocks, as each intrusive and many of the extrusives will have some peculiarities. Is it not better, as many American petrologists believe, to have a rather simple, quantitative rock classification, and to bring out these special differences by the use of mineral, textural, or other modifiers in a systematic way, and to indicate the special rock type by a formation name just as stratigraphers do? Our subdivisions are arbitrary—why carry on the refinement to the point where a knowledge of the nomenclature is a burden and few workers find it worth while to learn all the lingo? In other sciences the divisions may be more natural and hence necessary. Too much elaboration in nomenclature may retard progress. I speak with feeling, as I have a poor memory for such things.

The material of the book under review is well and carefully prepared. American petrographers would not agree to all the details. Tröger uses theralite for the family with essential plagioclase, orthoclase, and nepheline, and essexite for the similar rocks lacking essential orthoclase. Americans would replace his essexite by theralite and would use essexite or perhaps some other name in place of theralite.

The book should prove constantly useful to all workers in petrography. The material is very well arranged for practical use and the data are surprisingly complete and quantitative, considering the small space available for each rock name. As is common for all German books, the price is excessive and this will no doubt reduce its use in this country.

ESPER S. LARSEN