a N—S zone, which is paralel to the main Pan-African trends in the basement continuing northward to Niger Republic and lies on the continuation of the African continental margin south of Nigeria (Fig. 1.) Some authors are of the opinion that ring complexes have been formed in a region of crustal arching developped prior to the separation of Africa and South America in the Cretaceous (Turner D. C. 1976, Black R. 1965). They are built o two-fold volcanic sequences and their evolution is quite complex. According to Turner D. C. (1976) the evolution may be summarized as a sequence of three main stages:

1. Early volcanic stage characterized by building of large rhyolite volcanoes. Along with rhyolite some miner bodies of trachyte and basalt are known as well.

2. Čaldera and ring dyke stage which followed the rapid eruption of ash and tuff. This caused decreasing of hydrostatic preassure and led to the collapse of the centre of volcanic structure within the ring faults. Magma, which rose along the ring faults, crystalised as granite porphyry and extruded into the caldera, forming so called late rhyolites. On the contrary to the early rhyolites, all rocks of this stage are porphyritic.

3. Intrusive stage is characterized by gradual emplacement of differentiated intrusions below the volcanic complexes. Their number, shape and size are very varying within different complexes. The term "bell-jar" intrusions was suggested for some of them (Roberts 1970). Different petrogenetic types are the products of magma differentiation and assimilation of older rocks. All of them have been comprehended under the common term "Younger granites". Their economic significance is considerable, in particular that of biotite granite as the source of Sn, Nb, W, Mo, Zn and Pb mineralisation.

Economically most important are the deposits of cassiterite and columbite. Their forms of occurence are diverse, but so far the most important are the placer deposits or the weathered parts of rocks containing the mineralization. The primary mineralization has been the subject of interest for a few decades, but a systematic exploration has been launched only recently.

The geological structure of ring complexes is too complicated to be explained on a few pages, particularly when many details are not yet fully understood. Despite of that there are many similarities between Nigerian ring complexes and our volcanic and tin bearing areas with many comparable features.

Preložil autor

ZO ŽIVOTA SPOLOČNOSTI

E. Karolusová: **Geologicko-petrografické problémy leukokratných andezitov** (Bratislava 6. 3. 1980)

V skupine tzv. mladých pyroxenických andezitov v stredoslovenskej neovulkanickej oblasti majú osobitné postavenie leukokratné andezity. Ich regionálne rozšírenie so sprievodnými vulkanofaciálnymi produktmi je najvýraznejšie na juhozápadnej a južnej periférii stredoslovenskej neovulkanickej oblasti, najmä v Pohronskom Inovci a Štiavnických vrchoch. V Bátovskej kotline na S od Levíc sú pochované pod sarmatskými sedimentmi (Brestenská, 1964, 1970, a Karolus — Vaňová, 1973). Čerstvé leukokratné andezity sú tmavosivé až čierne a vyznačujú sa fluidálnymi textúrami. Časté sú vitroporfyrické pórovité odrody. Základná hmota je prevažne hyalopilitická, ale nevylučuje sa ani mikrolitická, najmä v strede prúdov (74 až 90 % minerálneho zloženia).

Porfyrické výrastlice plagioklasov sú zonálne, kostrovité a vplyvom magmetickej korózie a rýchlej kryštalizácie nedokonale vyvinuté. Bazicita je v Pohronskom Inovci najbežnejšie An_{40-50}, na J Štiavnických vrchov sa vyskytujú bázickejšie plagioklasy s An_{50-60}. Ich obsah podľa modálneho zloženia je menlivý (od 7—20 %). Pyroxény zastupuje hyperstén. Jeho obsah býva od 0,3—1,7 a len ojedinele 2 %. Jednoklonný pyroxén je drobný, zvyčajne v zhlukoch s hypersténom. Jeho modálny obsah je od 0,1—0,6 %. Tieto andezity sú pomerne kyslé, s priemerným obsahom SiO_2 59—63 %.