inherited from the parent rock, because relict bedding is missing over the region. The growth of albite porphyrohlasts is considered to he the result of local migration of sodium, derived intraformationally from the detritical albite, by metamorphic differentiation. The relatively high solubility of quartz and albite in low-grade environments is an essential factor that has facilitated segregation of quartz in lenses and laminae, and albite further redeposited and reaching the present porphyroblastic shape probably due to concretionary growth. The metamorphic differentiation and the whole metamorphic evolution is related to the first deformation-time.

Thus, the evolution of Wechsel schist from the original feldspathic sediment towards its present state has occured in the first deformation-time (N-S axis), and both direct and indirect components had played an important role in such evolution. Lineations parallel to B, intersecting s-planes, and girdle patterns in quartz diagrams point against crystallization under load.

Studies on the Wechsel and Semmering Rocks around Trattenbach

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Abstract

On the basis of the presence or absence, and the percentage of albite, tbe albite schists of Wechsel series in the Trattenbach area, are distinguished. The porphyroblastic nature is noted to he conspicuous towards the east, with reduced percentage of quartz. Albite grains in the greenschists are seen to display rotation to a more marked degree than the albite schists. Both the greenschists and the albite-rich albite schists are characterised hy prochlorite(?) variety of chlorite, while the albite-poor and albite-free schists are distinguished by the presence of Penninite. Chlorite in the Quartz-phyllites also shows Penninite.

Structural analysis of the rocks has not given any significant result, mainly due to inadequate measurements, which is again due to rarity of insitu outcrops of albite schists. However, the structural feature of the albite schist area is probably a dome.

Trace element studies show good correlation between the greenschists and albits schists. They fall in the same field, though the greenschists show inclination towards the basic field, and the albite schists move towards the clastic line. The greenschists are considered as products of low grade progressive metamorphism of tuffitic sediments, while the albite schists are products of low grade regional metamorphism of pelitic sediments. They belong to the quartz-albite-muscovite-chlorite subfacies of the greenschists facies. Phyllites and graphitic phyllites, in spite of divergence in some diagrams, on the whole show good correlation, and tbey are considered as products of metamorphism of sediments under reducing conditions, as evidenced by graphite and pyrite. The original rocks may be of graywacke composition.

The presence of felspar and muscovite in the quartzites from Baumgarten distinguishes them from the conglomeratic quartzites of the Semmering series. The interlocking nature of the grains in the former also is characteristic.

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