In Mozambique, the occurrence of zeolites, forming well-developed crystals in cavities associated with Karroo basalts, was reported by several authors. Zeolites are located in the upper part of the lava flows, near the contact with rhyolites. Big crystals of quartz, stilbite, laumontite, scolecite and natrolite measuring 10 x 30 cm, have been found filling vesicles and mega-amygdales. In spite of previous research, the knowledge on this important industrial mineral is scarce and quite limited.

Microcrystalline zeolites, of economic importance in the country, can be expected in thick layers of rhyolitic and basaltic ash-tuffs and tuffites altered either directly in shallow basins during or shortly after the deposition or by underwater action. A potential source of zeolites are Karroo volcanics from the Lebombo Mts. range to the area of Chibabava of Karroo volcanics in the Tete Province [1].

The aim of this paper is to report zeolites such as heulandite and mordenite, firstly reported in Mozambique, stilbite and laumontite in vesicular basalts from Movene Formation. The extension of mapped outcrops is considerable so that the Movene Formation may contain economically valuable deposits of microcrystalline zeolites.

The use of natural zeolites in the treatment of effluents containing heavy metals is well known [2]. That could be one of the possibilities of application of natural zeolites in Mozambique, where there is mercury pollution related to artisanal mining activities.

References: