

In man's environment there are still many asbestos materials, mainly in the form of asbestos-cement, which poses a huge ecological problem due to asbestos carcinogenic properties. According to the binding law, the recommended and applied method of handling asbestos materials in EU is their storage at special hazardous waste landfills, which does not solve the problem in the long term. This way of neutralizing asbestos seems to be only a partial solution as it does not destroy the fibrous structure of asbestos – it merely separates it from the environment. Therefore, it seems necessary to develop methods of neutralizing asbestos and asbestos products by destroying its fibrous form so that the non-toxic material produced could be practically used in the future.

The goal of the project was to examine the kinetics of the thermal decomposition of asbestos contained in asbestos-cement waste and to determine the effect of inorganic additives, the addition of which will be aimed at accelerating the reaction of the decomposition of asbestos contained in asbestos-cement materials and to shape a favourable phase composition, taking into consideration the potential hydraulic properties of the processed material. Kinetic investigations will be carried out by the *in-situ* or *ex-situ* method, using X-ray diffraction and thermal analysis methods. The hydraulic properties and the material's influence on the hydration process will be examined by the methods applied in investigations into the functional properties of the commonly used cements.