

Obtaining and research of new composite materials based on leaves styrene and triethoxy(vinylphenethyl)-silane

Tamari Abuashvili

Department of Chemistry, Iv. Javakhishvili Tbilisi State University,

Ilia Chavchavadze Ave.3

The work deals with the obtaining and research of new composite materials based on renewable plant raw materials-leaves and binders-styrene and triethoxy (vinylphenethyl)-silane. These composite materials are characterized by better physical-mechanical properties than wood particle boards made on the basis of phenol-formaldehyde resins. The study of obtaining new composite materials under constant pressure and at different temperatures, the optimal conditions for making composites have been established. The obtained results will allow us to import the produced materials at home, for the production of ceilings, floors, walls, as well as to use them in the manufacture of furniture. For the samples were examined: water absorption, bending strength, impact viscosity, thermogravimetric analysis, thermal stability (Vickat method), spectral (FTIR) and optical microscopic investigations, The optimal condition of wood polymer composites were determined.