
Investigation of mechanisms of early stages of wood biodegradation, development of preservatives and modification processes for enhancement of wood durability

Aim of the project: Study of the mechanisms of the early action stages of rot fungi for the development of complex compositions on the basis of organic compounds; optimisation of thermo-modification methods to ensure the stable durability properties of coniferous and deciduous wood used in the national economy.

Tasks

- To extend knowledge about the early stages of biodegradation of industrial timber with widespread rot fungi species, and on the basis of the obtained data, to look for low toxic compounds for purposeful inhibition of the biochemical/chemical processes of the microorganisms’;
- To study the changes in the properties of wood of different tree species in hydrothermal modification processes, to elucidate the peculiarities of thermal action on the composition and structure of wood, to analyse the possible reasons for biodurability and to optimise the treatment parameters for the development of materials with predictable properties.

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Sponsored by: Ministry of Education and Science of the Republic of Latvia

Duration: 2009–2012

Partner: –

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