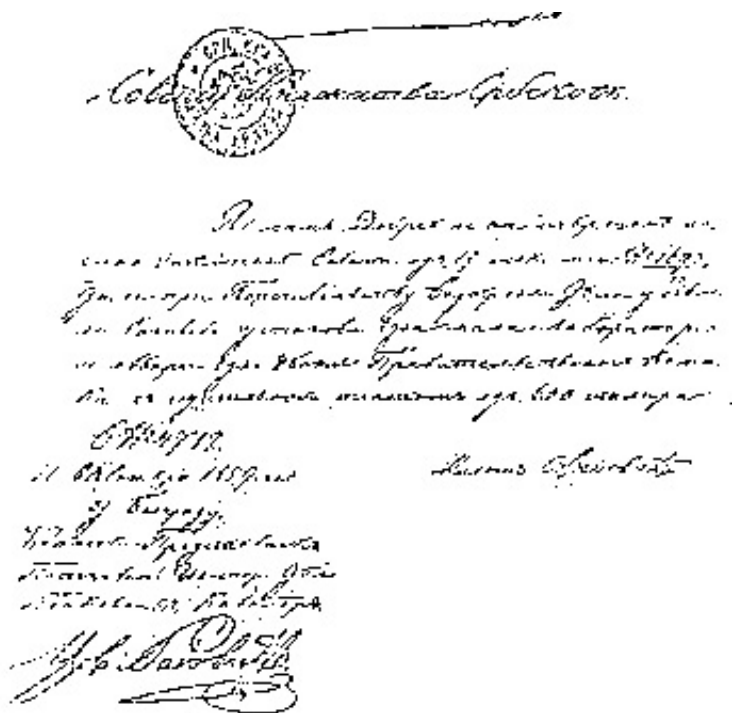


Climate Smart Forestry in Mountain Regions CLIMO COST Action CA15226

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University of Belgrade
Institute of Chemistry, Technology and Metallurgy

The Institute of Chemistry, Technology and Metallurgy (IChTM) started as the State Chemical Laboratory in 1859 (decree of prince Miloš Obrenović)



In 1882 a new building to be the place “to gather all chemists of Serbia”.

State Chemical Laboratory (1859-1926),
Department for chemistry of Central Sanitary Agency (1926-1941),
Research Institute of Central Directorate for Medical Production (1944-1948),
Chemical institute of Serbian Academy of Sciences (1948-1954),
Chemical Institute (1954-1961),
Institute of Chemistry, Technology and Metallurgy (1961-)

The fundamental and applied multidisciplinary scientific research of the IChTM in the following areas:

Department of Chemistry

Department of Electrochemistry

Department of Microelectronic Technologies

Department of Catalysis and Chemical Engineering

Department of Materials and Metallurgy

Department of Ecology and Technoeconomics

Department of Remediation

Chemistry and Chemical Technology

Organic Chemistry

Electrochemistry

Catalysis

Microelectronic Technologies

Macromolecular and Polymer Materials

Biochemistry and Biotechnology

Materials Science

Metallurgy of Powders and Sintered Materials

Instrumental Analysis

Chemical Engineering

Nanoscience and Nanotechnology

Micro-Electromechanical Systems (MEMS)

Sensor

Optoelectronics

Plasmonics

Semiconductor Technologies

Magnetic Materials and Magnetism

Metals and Metal Alloys

Environmental Protection and Remediation

Climate Smart Forestry in Mountain Regions CLIMO

COST Action CA15226

Aim:

- To **define “climate smart forestry”** according to the sustainability of forest management and mitigation potential
- It will be done on the basis of **measurable criteria** and parameters
- Experimental forest sites will be selected to build a European Smart Forest Network (**ESFONET**)
- Development of **cyber-technology** for quick data transfer
- Innovative scheme of payment of **ecosystem services** (ES) to shift the forest production from timber to ES

WG2 Creation of an European Smart Forest Network ESFONET

Milica Kašanin-Grubin, IChTM

Dragan Randelović, ITNMS

Gordana Gajica, IChTM

Sanja Stojadinović, IChTM

Jovana Orlić, IChTM

Snežana Štrbac, IChTM

Physico-chemical properties of soils in “smart” beech stands across Europe

Objectives

- To determine basic physico-chemical properties of soils
- To determine the role that geochemical properties of different bedrock types and soils have in “smartness” of beech forests
- To determine the soil dispersive properties
- To predict behavior of soil in conditions of change in forest management practices and/or climate

Soil sample analyses (11 countries, 21 plot, 86 samples)



Two STSM's

1. Prof. Emira Hukić, Faculty of Forestry, University of Sarajevo:
“Evaluation of the Criteria of Climate Smart Forestry: Linking Humus Forms with Mountain Forest Stand Development”

14.-27.1. 2019. Additional visit 28.2.-2.3.2019.

- Rainfall simulation experiments
- Soil from Bosnia and Herzegovina
- 2x4 samples at one location (0-10cm, 10-20cm, 20-40cm, 40-80cm)
- Testing extreme climate conditions
- 5 cycles: 30 min rainfall
- 4 samples drying at 40°C, 4 samples drying at -5°C
- Measuring leachate properties (volume, pH, EC, ion concentration)



2. Viven Pohl, Ph.D. candidate, Environmental Sustainability and Health Institute, Dublin Institute of Technology:

“Pollution-induced climate change effects on forest ecosystems”

25.2.-15.3.2019.

- Rainfall experiment using distilled water (control sample) and acid rain
- Soil from Ireland
- Determine leachate properties
- Measure soil recovery using respirometer during 2-4 weeks
- Determine soil properties at the beginning and at the end of the experiment

THANK YOU!

