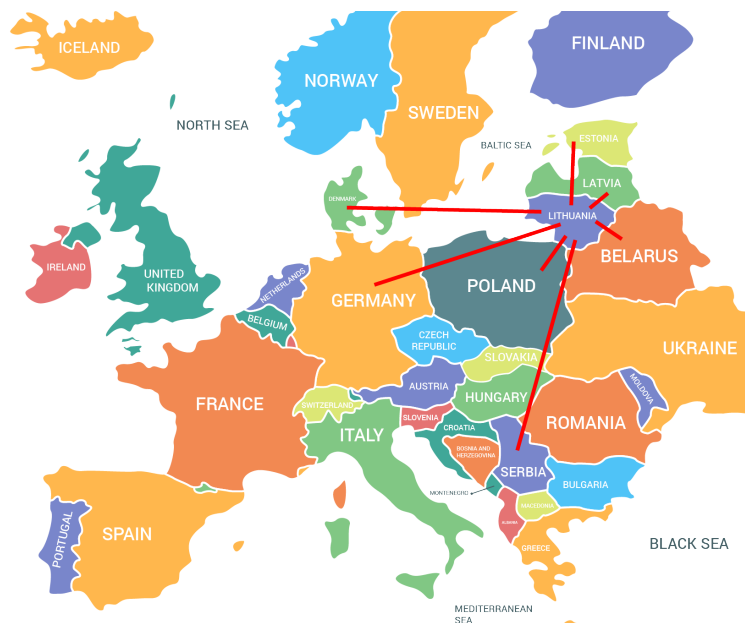


LABORATORY OF MATERIAL RESEARCH AND TESTING



LITHUANIAN
ENERGY
INSTITUTE

OUR COLLABORATION IN ACCREDITED FIELDS



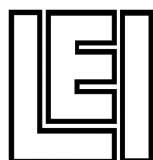
YOU MAY KNOW US FROM HORIZON 2020, FP7, IAEA PROGRAMS, COST ACTIONS



IAEA
International Atomic Energy Agency



Breslaujos g. 3
Kaunas, LT-44403
Lithuania
tel. +370 37 401805
fax. +370 37 351271
www.lei.lt



HEAD OF LABORATORY:

Dr. Irena Lukošūtė
tel. +370 37 401908
stase.irena.lukosiute@lei.lt
www.lei.lt



MATERIAL RELIABILITY

LABORATORY OF MATERIAL
RESEARCH AND TESTING

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RESEARCH AND TESTING

At a glance



RELIABILITY OF POWER PLANT FACILITIES: RESEARCH OF METAL AGING PROCESSES AND DEGRADATION OF PROPERTIES DUE TO THE IMPACT OF OPERATIONAL FACTORS

DEVELOPMENT AND RESEARCH OF MULTIFUNCTIONAL
MATERIALS AND COMPOSITES

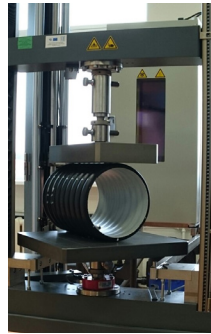
TESTING OF MATERIALS, ASSESSMENT AND ANALYSIS OF THEIR QUALITATIVE INDICATORS

LABORATORY COMPLIES WITH THE REQUIREMENTS OF LST EN ISO/IEC 17025
STANDARD AND IS ACCREDITED TO CARRY OUT TESTS OF **BUILDING MORTARS,**
PLASTIC PIPES, PRE-INSULATED PIPES AND REFRACTORY PRODUCTS.

Accreditation possibilities

■ Plastic pipes:

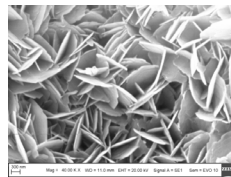
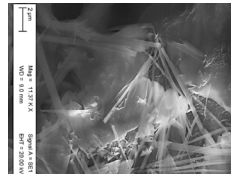
- ▶ **Dimensions** LST EN ISO 3126
- ▶ **Impact resistance** LST EN 744, LST EN 1411
- ▶ **Resistance to internal pressure** LST EN ISO 1167-1
- ▶ **Ring stiffness** LST EN ISO 9969
- ▶ **Leaktightness** LST EN 1277
- ▶ **Resistance to dichloromethane** LST EN 580
- ▶ **Tensile properties** LST EN ISO 6259-1
- ▶ **Longitudinal reversion** LST EN ISO 2505



Testing of plastic pipes

■ District heating pipes, pre-insulated bonded pipe systems according

- ▶ LST EN 253:2009+A2:2016



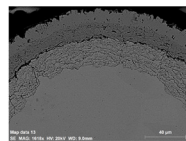
Preparation of nanofillers for nanocomposites

■ Plastics and cellular plastic:

- ▶ **Density** LST EN ISO 1183-1
- ▶ **Vicat softening temperature** LST EN ISO 306
- ▶ **Apparent density** LST EN ISO 845
- ▶ **Compression properties** LST EN ISO 844

■ Masonry mortar, plastering mortar:

- ▶ **Consistence** LST EN 1015-3, LST EN 1015-4
- ▶ **Flexural and compressive strength** LST EN 1015-11
- ▶ **Absorption properties** LST EN 1015-18
- ▶ **Initial shear strength** LST EN 1052-3
- ▶ **Frost resistance** LST L 1413.11, LST EN 1015-11

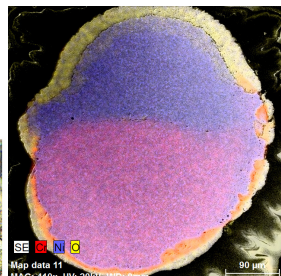
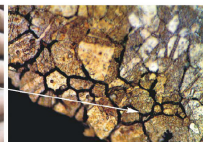


■ Refractory products:

- ▶ **Thermal conductivity** LST EN ISO 8894-1
- ▶ **Cold crushing strength** LST EN ISO 8895



Research of steels corrosion



Project expertise

- 7FP Project "Nanotechnology Enhanced Extruded Fibre Reinforced Foam Cement Based Environmentally Friendly Sandwich Material for Building Applications (FIBCEM)".
- 7FP Project „Materials Testing and Rules (MATTER)".
- HORIZON 2020 „INcreasing Safety in NPPs by Covering gaps in Environmental Fatigue Assessment (INCEFA PLUS)".
- COST MP0701 „Composites with novel functional and structural properties by nanoscale materials (nano composite materials – NCM)".
- COST 538 "High Temperature Plant Lifetime Extension".
- COST 525 "Advanced Electroceramics: Grain Boundary Engineering".
- COST 533 "Materials for Improved Wear Resistance of Total Artificial Joints".
- High technology implementation project „Peculiarities of Nano-Structures Formation in the Cementitious Building Materials: Research and Technological Development (NanoCSM).
- Researchers team project „New generation steel service life assessment model".
- International Atomic Energy Agency (IAEA) project „Analysis of Nuclear fuel Cladding Resistance to Hydride Cracking During Long-Term Storage".

MAIN CUSTOMERS FOR IMPLEMENTATION PROJECTS

