

Introduction to COST-Action FP0802

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Chair of COST Action FP0802

What is COST?

- one of the longest-running **European instruments supporting cooperation** among scientists and researchers across Europe
- does **not fund research itself** but **provides a platform** for European scientists to cooperate on a particular project and exchange expertise
- **increases the mobility** of researchers across Europe and **fosters the establishment of scientific excellence**
- main **instruments**:
 - reimbursement of travel cost for meetings/ workshops
 - funding of short-term visits of researchers to other institutes (STSM)
 - training schools, particularly for young researchers

FP0802 – Main/ primary objectives

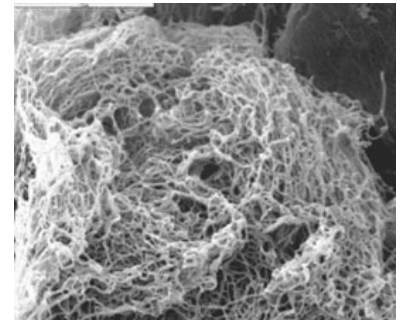
Increased understanding of wood micro-structure and micromechanics

➤ by exploring and evaluating emerging techniques in the fields of physics, chemistry, materials and computer science

➤ in order to provide a strong basis for the development of innovative wood-based products in the future and for enhancing the use of the natural resource wood



time-resolved scanning acoustic microscope, SASAM (P. V. Zinin)

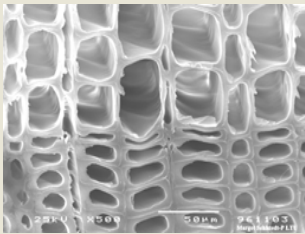


bio-composites made of cellulose nano-fibers and recombinant resilin; (O. Shoseyov)

WG1 - Wood microstructure

L. Thygesen (DK)
[S. Tschegg (AT)]

investigation of wood structure at the sub-micrometre and molecular scale, origin of moisture and time dependent behaviour

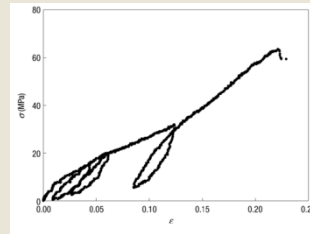


Wood cell structure
(Sehlstedt '06)

WG2 - (Hygro-) mechanical behaviour

M. Eder (GE)
[O. Arnould (FR)]

determination of hygro-thermo-mech. properties of wood and its components, in-situ testing, structure-function relationships

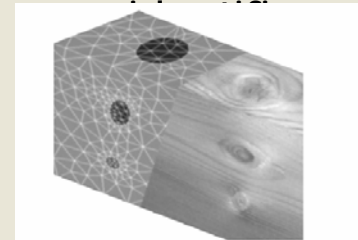


Stress-strain curve
fibre (Burgert '04)

WG3 - Modelling of material behaviour

K. Gamstedt (SE)
[M. Jarvis (UK)]

numerical modelling of the hygro-thermo-mechanical behaviour of wood, virtual testing, inverse parameter



FE simulation of knot
(Kaliske '05)

Upcoming events

- **Workshop on modelling of wooden cultural objects:**
 - WG3, in cooperation IE0601 (*'Wood science for cultural heritage'*)
 - Krakow (PL), April 12-13, 2010

- **Training School**
 - practical training of PhD students on experimental techniques used to measure anatomical and mechanical properties
 - Potsdam (GE), May/ Juni 2010

- **Workshop on wood structure-function relationships**
 - all WGs (annual workshop)
 - Hamburg (GE), October 6-8, 2010



Further information

➤ Action webpage: <http://cost-fp0802.tuwien.ac.at>

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