

Romania

September 2013



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"Petru Poni" Institute of Macromolecular Chemistry, Iasi



COST FP1205: Innovative applications of regenerated
wood cellulose fibres



Participating Group 1 – developing/production

Participating Group 2 – characterization

Participating Group 3 – testing

Romania

"Petru Poni" Institute of Macromolecular Chemistry, Iasi

September 2013



Chemistry, Iasi

"Gh. Asachi" Technical University of Iasi

Ceprohart SA, Braila

Participating Group 1 – developing/production

- modification of cellulose by acetylation and grafting
- cellulose based hydrogels for drug delivery

- cellulose derivatives based hydrogels for drug delivery

- cellulose based materials for packaging
- bioactive paper for packaging, biohazards, water quatily, air filters, face masks, etc.

- cellulose based materials for coating



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Participating Group 2 – characterization

- morphological (optical microscopy, SEM, TEM, AFM)
- structural (FT-IR spectroscopy, X-ray diffraction, XPS, Raman, etc.)
- thermal (TG, DSC, TG/IR/MS)



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"Gr. T. Popa" University of Medicine and

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Pharmacy, Iasi

"Petru Poni" Institute of Macromolecular

Chemistry, Iasi

Institute of Biology, Iasi

Participating Group 3 – testing

- bacterial (*Staphylococcus aureus*, *Bacillus cereus*, *Bacillus subtilis*, *Escherichia coli*, *Candida albicans*, *Klebsiella*) testing
- in vitro and in vivo testing for the materials used for drug delivery
- testing for fungi



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Institute of
Macromolecular
Chemistry, Iasi

- ✓ liquid state NMR spectrometer
- ✓ FTIR spectrometer
- ✓ UV-Vis spectrometer
- ✓ X-ray diffractometer
- ✓ Scanning probe microscope (AFM)
- ✓ Scanning electron microscope
- ✓ Transmission electron microscope
- ✓ Differential scanning calorimeter
- ✓ Thermogravimeter
- ✓ Dynamic mechanical analyzer
- ✓ Thermal analysis system TG/DSC/FTIR/MS
- ✓ Rheometer
- ✓ Contact angle measuring system
- ✓ QCM balance