



An offer for STSMs within the COST Action FP1006

## **BioComposites Centre, Bangor University**

### **Research Activities**

**Wood (and other cellulosic material) modification** – chemical and heat treatment

**Wood preservation** - chemical preparation and both lab and pilot scale impregnation systems

**Wood and wood composite durability** – mycological decay, weathering (both accelerated and long term testing), colour change analysis.

**Mechanical testing** – large, small and micro scale testing (inc. DMTA with humidity)

**Thermal degradation** - TGA, DSc and DMTA

**Hydrothermal properties of timber** – dynamic vapour sorption analysis

**Wood Chemistry analysis** – FTIR, ICP, NMR, GC-MS, GC, HPLC (sugar analysis)

**Microscopy** – Light, Fluorescence, confocal microscopy, SEM

**Composites Manufacture** – wood composites (MDF, Particleboard, OSB), wood plastic composites, polymer composites. Both on lab scale and pilot scale

**Environmental effects of products** – VOC analysis, degradation product analysis, LCA

### **Current Relevant Projects**

Understanding the effects of modification treatments on the valorisation of Welsh timber

Valorisation of waste from the paper industry into the panel industry

Recovery of metals using novel methods of extraction

Novel modification methods and the effects on timber properties

### **Contact**

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