

Functionalized fibers in paper&board

Many paper and board grades consist of mixtures of cellulosic fibers and inorganic pigments; each component brings its own useful properties. However, the integration of the mineral and inorganic components in paper is far inferior to the material synergies that nature achieves in many biological systems. In our biominerals research, we are developing routes for the rational integration of mineral and fiber components to reach higher material performance than can be achieved otherwise.

Fiber properties can also be modified with special coatings and printing. Applications for special coated fibre-based substrates can be found in the future in e.g. flexible solar cell substrates or authentication taggants. These are examples of research topics under examination at the moment.