Contribution ID: **21** Type: **On-site project**

Functional cellulose-lignin-coating on porous materials

Lignins are wood-based sustainable materials with specific absorption of UV wavelengths. This makes them suitable and sustainable candidates for functionalized coatings in view of being impermeable for UV light. We investigate functionalized, nanocomposite coatings of cellulose nanofibrils (CNF) and different lignins. Our challenge is to make them robust again all common external influences. Especially coating on porous templates becomes more and more important. We focus on the robustness of these coating and their UV impermeability. This project aims to explore the best parameters to fabricate these coatings. In addition, the structure of the CNF-lignin networks will be characterized by small-/wide-angle X-ray scattering (SAXS/WAXS), atomic force microscopy (AFM) and scanning electron microscopy (SEM).

Field

A3: Soft-matter sciences (application oriented)

DESY Place

Hamburg

DESY Division

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Special Qualifications:

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