

## FunEnzFibres – Latest news

The project 'From fundamentals to valorization: Enzymatic oxidation of cellulosic fibres and underlying mechanisms' (FunEnzFibres, 2019-2022) explores enzymatic oxidative methods for sustainable processing of cellulosic fibres into novel products such as sustainable textiles, coatings and adhesives (1). The project combines top-notch expertise in enzymatic cellulose oxidation (NMBU), advanced cellulose analytics (BOKU) and enzymatic fibre processing and enzyme production (VTT). During the project, we have explored production systems for cellulose oxidizing enzymes (2), the effects of enzyme having different modular structures and oxidation specificities on different types of cellulosic fibres (3) and set up new analytical methods for analysis of oxidized fibres (4, 5). In the application studies, our focus is enzymatic pre- & post-treatments in making man-made cellulosic fibres, aiming at improved fibre reactivity and targeted surface modifications. Going towards the end the final project year, we're working on the scientific publications, so stay tuned!

Website: <https://www.nmbu.no/en/projects/node/38547>

Research Gate page: <https://www.researchgate.net/project/From-fundamentals-to-valorization-Enzymatic-oxidation-of-cellulosic-fibres-and-underlyig-mechanisms-FunEnzFibres>

See also:

- 1) Várnai A et al. (2020) Encyclopedia of Mycology. <http://dx.doi.org/10.1016/B978-0-12-819990-9.00019-6>
- 2) Aro et al. (2020) [https://forestvalue.org/wp-content/uploads/2020/06/FunEnzFibres-stakeholder-oriented-article-1\\_FF.pdf](https://forestvalue.org/wp-content/uploads/2020/06/FunEnzFibres-stakeholder-oriented-article-1_FF.pdf)
- 3) Gaber Y et al. (2020) Biotechnol Adv 2020, 43:107583. doi:10.1016/j.biotechadv.2020.107583
- 4) Sulaeva et al. (2021) <https://forestvalue.org/wp-content/uploads/2021/03/FunEnzFibres-stakeholder-oriented-article-2.pdf>
- 5) Budischowsky D, Sulaeva I, Rosenau T, Potthast A (2021) Fluorescence labelling of C1 oxidized cellulose for tracking lytic polysaccharide monoxygenases (LPMOs) activity. Poster in 7th EPNOE International Polysaccharides Conference, 11-15 October 2021, Nantes (France)

