

## Abstract for Cellulose Conference 2024

**Title:** Cellulose fibers – a versatile raw material for textile and paper industry

**Speaker:** Rosario Othen, Sascha Schriever

This presentation will provide a comprehensive overview of the extensive applications of cellulose within the textile and paper industry. Beyond exploring the various uses of cellulose, it will shed light on the market opportunities available, drawing insights from a study on fiber demand.

Moreover, the session will introduce a range of intriguing development projects conducted at the Institut für Textiltechnik, where cellulose plays a pivotal role. These projects encompass the creation of high-performance insulation materials, the utilization of cellulose for growth substrates, and the integration of digital technologies within the paper industry. Lastly, a new development is presented in the context of dry paper production.

The topics covered in this presentation include:

1. Study on Fiber Demand – This section will delve into the comprehensive findings of the study, examining the evolving landscape of cellulose fiber demand and its implications for industry stakeholders.
2. Cellulose Aerogels – The presentation will showcase the latest advancements in cellulose-based aerogels, demonstrating their remarkable lightweight and insulating properties suitable for various applications.
3. Cellulose based growth substrates – We will explore innovative and sustainable approaches for the development of cellulose based alternatives for peat.
4. Digitalisation in Paper and Nonwoven Production – Process Modeling – This segment will focus on how digitalization and advanced process modeling techniques are revolutionizing the efficiency, energy consumption, and environmental impact of paper and nonwoven production processes.
5. Dry Paper Production – Attendees will gain insights into the cutting-edge methodologies in dry paper production, with an emphasis on sustainability practices and efficiency improvements that are charting the course for the industry's future.

This presentation promises to be an enlightening journey into the versatile world of cellulose fibers, offering profound insights into their potential and contributions to both the textile and paper industries.

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Mein Zeichen: SSch/RO  
**14.10.2023**