

SPEAKER



NAME

Dr. Stefan Spirk

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BIOGRAPHY

Dr. Stefan Spirk is an Associate Professor at the Institute of Paper, Pulp and Fiber Technology at Graz University of Technology. He studied Chemistry at University of Graz and obtained his master's degree in 2006 and his PhD in 2009. Afterwards, he did postdoctoral stays in Bielefeld, Germany (gas electron diffraction) and Maribor, Slovenia, where he started to work on functional polysaccharide materials. In 2013, he was offered an Assistant Professor position at Graz University of Technology and 2018 he was promoted to the Associate level. Stefan Spirk was awarded several Marie Curie Fellowships (2009, 2011, 2013) by the European Commission and by the Austrian Science funds. He has been involved in several large projects on national and European level.

Dr. Spirk's research interests deal with biobased materials with a focus on cellulose and how these can be implemented in advanced technologies such as optoelectronics, energy storage and medical applications.

LECTURE

Insights into properties of cationic starches prepared by jet cooking

The optimized use of any raw material in large scale industries is a prerequisite to contribute to a more sustainable environment. However, often the raw materials themselves are tricky to analyze particularly if they involve biobased materials of high inhomogeneity. In addition, slightly different modification and processing may result in unexpected properties, in both positive and negative direction.

A particularly reluctant raw materials is starch, which poses several challenges in the analytics and the subsequent processing. In this talk, we focus on a rather simple task at first glance-to dissolve industrially relevant cationic starches of different origins. The main theme of the talk will be to use jet-cooking under various conditions and to correlate the rheological behavior of the starches to the cooking conditions.