International Symposium on Biorefining, Papermaking, and Lignocellulosic Materials 2022 (ISBPLM 2022)

May 12-14, 2022

Shaanxi University of Science & Technology, Xi'an, China

The First Announcement

The International Symposium on Biorefining, Papermaking, and Lignocellulosic Materials 2022 (ISBPLM 2022) will be held at Shaanxi University of Science & Technology (SUST) in Xi'an, China from May 12 to 14, 2022. For convenience, the symposium will be held in both online and offline forms. The conference will provide a good platform for domestic and foreign experts, scholars and entrepreneurs in biorefining, papermaking, and lignocellulosic materials and other related fields for learning and communicating from each other.

The symposium will be sponsored and organized by Shaanxi University of Science & Technology (SUST), South China University of Technology (SCUT), Tianjin University of Science & Technology (TUST), Nanjing Forestry University (NFU), Qilu University of Technology (QUT) and Guangxi University (GXU).

Your participation and contribution is an important guarantee for the success of the conference. You are cordially invited to attend this event. Please visit the symposium website later for more information: http://www.isbplm2022.com.

CALL FOR PAPERS

You are invited to submit your presentation to the Scientific Committee of the Symposium on the following topics:

Topics for ISBPLM 2022

- Plant fiber chemistry and new analytical methods
- Pulping and bleaching chemistry, high yield pulping, fiber recycling and non-wood pulping
- Papermaking chemistry and engineering, finishing, coating, and converting
- Equipment and process control on pulping, papermaking, and biorefinery
- Environmental issues in the pulp and paper industry
- Nanotechnology, nanofiber and nanocellulose-based functional materials
- Biomass conversion to fuels, chemicals, and materials
- Printing and graphics processing
- Special topic: flexible electronics based on biomass

TIMETABLE (DATES & DEADLINES)

- Abstracts (approx. 300 words) submitted — December 15, 2021
- Acceptances notified — January 15, 2022
- Early-bird registration ends — March 31, 2022
- Main symposium — May 12-14, 2022

ORGANIZATION

Sponsored and Organized by:

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Shaanxi Provincial Key Laboratory of Papermaking Technology and Specialty Paper Development, Shaanxi University of Science & Technology

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Scientific Committee (*To be updated*)

FORMAT FOR THE ABSTRACT

The example below shows the format for preparing your abstract. Please prepare your abstract accordingly. You can add figures and tables.

NOTICES:

- Please submit your abstract through the website: http://www.isbplm2022.com.
- All accepted abstracts will be distributed to attendances as an electronic file at the ISBPLM 2022.
- English is the official language of the symposium. All abstract should be written in English.

CALL FOR SPONSORSHIP:

Companies or other organizations that are interested in sponsoring this conference please contact Assoc. Prof. Dai at: dailei@sust.edu.cn.

A simple multi-wavelength spectroscopic method for the determination of carboxyl group content in nanocellulose (Times New Roman, 12 font, bold)

Ning Yan [1], Xin-Sheng Chai [2], Troy Runge [3*](Times New Roman, 10.5 font)

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(NOTES: Please replace the above title, author names, affiliations, and corresponding author's e- mail address with yours. Presenter's name should be underlined. Please delete these lines in red letters when you will have completed to prepare your abstract.)

ABSTRACT (Times New Roman, 10.5 font, bold): This study describes a multi-wavelength spectroscopic method for the determination of carboxyl group content of nanocellulose. Methylene blue (MB) was used as a color indicator, which can bind to the carboxyl groups in nanocellulose to form a R-COOMB complex with a binding ratio of 1:1, although the spectrums of MB and R-COOMB at 500 ~ 750 nm are overlapped, and solid impurities could cause spectral interference. To solve these issues, a multi-wavelength spectroscopic measurement on a MB and nanocellulose mixture solution technique and mathematical model were developed, allowing the content of carboxyl groups in nanocellulose to be quantified. The results showed that the method has good measurement precision and accuracy as compared with those measured by a reference method. The method is simple and requires only a small sample size for testing and thus makes it suitable for nanocellulose related research and applications. (Times New Roman, 10.5 font)

KEYWORDS (Times New Roman, 10.5 font, bold): Nanocellulose; Carboxyl group; Methylene blue; Multi-wavelength spectroscopy (Times New Roman, 10.5 font)

REFERENCES (Times New Roman, 9 font, bold)

[1] Dufresne A. Nanocellulose: from nature to high performance tailored materials. Walter de Gruyter GmbH & Co KG, 2017.

[2] Abitbol T., Rivkin A., Cao Y., et al., "Nanocellulose, a tiny fiber with huge applications", *Current Opinion in Biotechnology*, **39**, 76-88 (2016)

[3] Liu C., Du H., Dong L., et al., "Properties of nanocelluloses and their application as rheology modifier in paper coating", *Industrial & Engineering Chemistry Research*, **56**, 8264-8273 (2017)