Introduction to Special Issue

Bio-Based: An Important Theme of 2017 Wood Adhesives Conference

Christopher G. Hunt Gregory D. Smith

This special edition of the *Forest Products Journal* contains invited papers selected from the International Conference on Wood Adhesives, held October 25–27, 2017, in Atlanta, Georgia.

At the meeting, the presentations were enlightening, the 241 attendees were highly engaged, and many good discussions took place during breaks. The keynote speaker, Johan Bruck from IKEA, energized the attendees by discussing IKEA's commitment to use all bio-based adhesives in their products. This was especially relevant to the many companies and academics working on bio-based adhesives. Other plenaries highlighted the myriad opportunities available from highly reactive bio-based cross-linking agents, the long road from laboratory to commercialization, the market overview for wood panels, innovation in wood adhesives, advances in the understanding of bonds by using tomography, practical considerations in formaldehyde testing, and an argument for why academics should embrace industrial collaboration.

The seats in the presentation rooms were full, right through to the final session, a panel discussion on the Strengths, Weaknesses, Opportunities, and Threats of the Wood Adhesives industry, which is included in the proceedings. Presentations throughout the 2½-day conference ranged widely. Many talks focused on new bio-based adhesive systems, including lignin, protein, carbohydrate, and any kind of combination with each other and with traditional adhesive systems. There were also sessions on new tools for analyzing adhesives and bondlines, fundamental understanding of adhesives, resin chemistry, and more. From new uses of nanoindentation, to new adhesive systems, to the chemistry behind formaldehyde generated from lignin degradation in the hot press, to cross-laminated timber testing methods, there were compelling talks for everyone.

The statistics spoke to the high level of science and practicality at the meeting. For an academic conference, it was notable that 61% of attendees were from industry. Many new companies were in attendance, and of those, most were interested in bio-based adhesives. In addition, almost half the attendees were from outside the United States, with contingents from 26 countries in Europe, North America, Asia, South America, and even as far away as New Zealand and Australia.

A link to the full proceedings (papers and presentations) was sent to all attendees after the conference and can be downloaded from the "past conferences" tab at the FPS website after logging in.

Planning for the 12th International Conference on Wood Adhesives is underway! We hope to see you September 30—October 2, 2020 in Portland, Oregon. Details will be posted at http://www.forestprod.org/woodadhesives and the linkedin group "International Conference on Wood Adhesives," as they become available. Anyone with ideas for the 2020 conference is encouraged to contact any member of the organizing committee, given below.

- Chris Hunt, FPL, Wisconsin, USA, Christopher.g.hunt@usda.gov
- Ning Yan, U of Toronto, Canada, ning.yan@utoronto.ca
- Warren Grigsby, SCION, Rotorua, New Zealand, warren. grigsby@scionresearch.com
- Joseph Jakes, FPL, Wisconsin, USA, joseph.e.jakes@usda.gov
- Johannes Konnerth, BOKU, Vienna, Austria, Johannes. Konnerth@BOKU.at
- Erik van Herwijnen, Wood Kplus, Vienna, Austria, e.herwijnen@wood-kplus.at

The authors are, respectively, Research Chemist, USDA Forest Service, Forest Products Laboratory, Madison, Wisconsin (Christopher.g. hunt@usda.gov); and Associate Professor, Dept. of Wood Sci., Univ. of British Columbia, Vancouver, British Columbia, Canada (greg.smith@ubc.ca).

[©]Forest Products Society 2018. Forest Prod. J. 68(4):339. doi:10.13073/68.4.339