



2016 *TJ* highlights: Recovery cycle, nanotechnology, and recycling research

As we wrap up our final issue of *TAPPI Journal* for the year, it's interesting to look at the research topics that were covered in 2016. As in previous years, pulping topics dominated, making up close to one-third of the papers published, although recycling and nanotechnology also made strong showings.

Pulping

Much of the pulping coverage this year was coordinated by *TJ* editorial board members, [Peter Hart](#), [Ricardo Santos](#), and [Brian Brogdon](#), who also serves as assistant editor for this journal. Brian and Peter organized special peer-reviewed content from the 2015 TAPPI PEERS Conference for the March and July Pulp and Engineering issues.

The recovery cycle made up half of the pulping coverage, with papers addressing issues with recovery boilers, rotary kilns, delignification, and black liquor combustion. Other pulping topics included dissolving pulp; mechanical pulping; bleaching in the chlorine dioxide stage; bleach plant optimization; and pulp mill retrofits. Corrosion topics dominated the engineering coverage, addressing high solids concentrators and recovery boiler generating bank tubes.

Recycling

Recycling topics comprised around 15% of research covered in *TJ* for 2016, thanks to efforts from our *Progress in Paper Recycling* editors, guided by [Mahendra Doshi](#), [Carl Houtman](#), and [Scott Rosencrance](#), who also serves as *TJ* editor-in-chief. Mahendra and Carl organized a special issue (January)

that included an interesting editorial from Mahendra describing significant papers from past Research Forums on Recycling. Topics covered included ink dispersion, drum pulping, mineral oil removal, deinking, OCC materials, and deinkability of inkjet and flexographic inks.

Nanotechnology

Nanotechnology – a category handled by [Art Ragauskas](#) and [J.Y. Zhu](#) – also comprised around 15% of 2016's papers. Art's June 2016 Nanotechnology issue explored cellulose nanocrystal suspension viscosity and thermal behavior; microfibrillated cellulose; cellulose nanofibrils and papermaking; nanofibril properties; and health, safety, and commercialization. This issue also included a special feature from Kathleen Bennett on research pathways driving development of cellulosic nanomaterials. Other nano coverage dealt with bioactive and breathable polyvinyl alcohol nanowebs, as well as nanocomposite fillers (this issue).



Coating/Printing and Papermaking

[Gerry Ring](#), [Marc Foulger](#), and [John Neun](#) handled a range of papermaking topics. Papermaking research this year examined whiteness, big data sets for process and quality improvements, using alum with cationic dispersed rosin size, pulp viscosity's relationship with paper properties, and AKD sizing. Coating/Printing topics were coordinated by editorial board members [Steve Ottone](#), [Randy Branston](#), and [Jim Niemiec](#), who handled coating and printing topics like flexographic ink-coating interactions and functional surfaces produced by foam coating.

Environmental, Coating and Nonwovens

[Paul Wiegand](#) coordinated peer reviews for environmental and wastewater treatment coverage. [Jere Crouse](#) handled engineering-related research, [Dave Carlson](#) offered expertise on corrugated topics, and [Gaurav Pranami](#) provided guidance on nonwovens and coatings.

A Special Thank You

TAPPI and the *TJ* staff would like to thank the editorial board for their tremendous help in providing expertise and handling the peer review process so *TJ* can provide readers with the most cutting edge research in the forest products and related industries. We'd also like to thank all of the peer reviewers who participate in this important process. In 2017, *TJ* readers can expect to see more special content organized by our editorial board on pulping, engineering, lignin valorization, paper physics, and recycling.

*For information on publishing in TAPPI Journal, contact tjournal@tappi.org, mshaw@tappi.org, or an editorial board member in your field of expertise. You can submit your papers to our online peer review system at <http://www.editorialmanager.com/tappi/>. **TJ***



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