PAPERmaking!

FROM THE PUBLISHERS OF PAPER TECHNOLOGY

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Paper Industry Technical Association

Research Articles

Most journals and magazines devoted to the paper industry contain a mixture of news, features and some technical articles. However, very few contain research items, and even fewer of these are peer-reviewed.

This listing contains the most recent articles from the five main journals that publish original research:

- *APPITA JOURNAL*
- *IPPTA JOURNAL*
- *J-FOR*
- *NORDIC PULP & PAPER RESEARCH JOURNAL*
- *TAPPI JOURNAL*

The Paper Industry Technical Association (PITA) is an independent organisation which operates for the general benefit of its members – both individual and corporate – dedicated to promoting and improving the technical and scientific knowledge of those working in the UK pulp and paper industry. Formed in 1960, it serves the Industry, both manufacturers and suppliers, by providing a forum for members to meet and network; it organises visits, conferences and training seminars that cover all aspects of papermaking science. It also publishes the prestigious journal *Paper Technology International* and the *PITA Annual Review*, both sent free to members, and a range of other technical publications which include conference proceedings and the acclaimed *Essential Guide to Aqueous Coating*.

APPITA JOURNAL, Vol.72, No.2, April-June 2019

1. The Value of Wood Extractives
2. Nanocellulose, Starch and Paper Strength
3. Colloidal stability of Pinus radiata wood extractives. Part 2: competing interactions between wood extractives and process variables determined from regression modelling
4. Study on catalytic ozonation degradation of guaiacol with cupric oxides loaded on activated carbon

APPITA JOURNAL, Vol.72, No.3, July-September 2019

1. The age of fibre
2. To Abbreviate or Not
3. Wood extractives recovery from flotation of thermo-mechanical pulp process water
4. Evaluating the lignin content in the fibreline of a birch kraft pulp mill with a TDS sensor
5. Suitability of banana stem pulp as replacement of softwood pulp for making superior grade unbleached paper from agro residue pulp

IPPTA JOURNAL, Vol.30, No.4, October-December 2018

1. An Innovative & Green approach for Synthesis of optical brightening agents and their applications in Paper Industry
2. An Innovative Strategy and Pilot Scale Study to Achieve ZSD (Zero Solid Waste Dumping) at Genus Paper 7 Board Ltd applying Extrusion Technology to Convert Plastics and Rice Husk Ash into Valuable Commodity
3. Blending of Melia Dibia with Eucalyptus Tereticornis and Casuarina for Evaluation of Pulp and Paper Makign Potential
4. Burning Issue – Earning Solution
5. Controlling of Odour Issues in Packaging Industries
6. Converting a Mill from Writing & Printing to Packaging Grades – a Case Study
7. Improvement in strength properties of packaging paperboard using biopolymer chitosan following a green approach
8. Innovative solutions for sustainable paper packaging
9. Low Carbon Technology Roadmap for Paper Sector
10. Paper Odour Problem – Maxim's Innovative Solutions
11. Productivity Improvements in Packaging Board by Overcoming bottlenecks and Technology upgradation – a case study by M/s.JK Paper Unit: CPM
12. Sustainable Coating solutions for Paper & Paper board

IPPTA JOURNAL, Vol.31, No.1, January-March 2019

1. Advancement & Digitalization in Cooling Water Treatment to have Informed Decision making & Avoiding Microbiological fouling to improve the asset life and Quality in reverse Osmosis Membranes
2. Artificial Intelligence for Wet-end optimization
3. Controlling Microbiological Growth and Foul Odors in Pulp & Paper Industry
4. Development of More Sustainable Barrier Technology for Packaging
5. FibreLean MFC – Cost Saving through Innovative Product
6. Handling Mineral Deposits in Pulp Bleaching & Recovery
7. Innovative Solution to Address Cracking Problem in Kraft Paper
8. Production, Brightness and Environmental Dynamics in modern Pulp making
9. Recent Trends & Industry Challenges in Coated Paper & Board market
10. Strength, odour, and hygiene – in the face of increased re-use of fibre and water

11. Wastewater and waste disposal management solution through innovative solutions like sludge pre-Treatment, TSS control by IoT and Polymer mixing Technology to improve dryness of Sludge
12. Water based coating solutions: a sustainable alternative to plastic

J-FOR, Vol.7, No.5, 2018

1. Surface Addition of Micro-nano Fibrillated Cellulose on TMP Paper by Wet-on-wet Curtain Coating on a Pilot Paper Machine
2. Process Parameter Optimization for Multi Fuel Fired Lime Mud Reburning Kiln Operation by Taguchi Method
3. Short-column Ion Exchange for Precipitator Dust Treatment: A Summary of Experience in Chloride Removal and an Introduction to Potassium Removal Capability
4. Paper Quality Control
5. Experiments on the Vertical Velocity Distribution of Black Liquor Spray in the Furnace

NORDIC PULP & PAPER RESEARCH JOURNAL, Vol.34 No.2, June 2019

1. Bleaching: Pre-bleaching of kraft acacia pulp
2. Paper technology: Effect of chemical additives on softness components of hygiene paper
3. Paper technology: Length-based hydrodynamic fractionation of highly networked fibers in a mini-channel
4. Recycling: Nano-lignocellulose from recycled fibres in coatings from aqueous and ethanolic media: effect of residual lignin on wetting and offset printing quality
5. Recycling: The influence of laccase/histidine system on the properties of OCC pulp fibers, and of handsheets made thereof
6. Recycling: Recovery of recycled paper in the removal of the textile dye basic yellow 28: characterization and adsorption studies
7. Lignin: Lignin-based adhesive crosslinked by furfuryl alcohol–glyoxal and epoxy resins

NORDIC PULP & PAPER RESEARCH JOURNAL, Vol.34 No.3, September 2019

1. Biorefinery: The influence of bio-fibers from different pulping processes on the pulp-polylactic acid composites (PPCs) properties from sugarcane bagasse
2. Chemical pulping: Deeper insight into the morphological features of sunflower stalk as Biorefining criteria for sustainable production
3. Chemical pulping: Optimization of the microstructure of carbonized lime mud by sodium polyacrylate
4. Bleaching: Improvement in selectivity of ozone bleaching using DTPA as carbohydrate protector for wheat straw pulp
5. Bleaching: Fiber structures and properties of eucalyptus kraft pulp via different bleaching methods
6. Paper technology: On the modeling of tensile index from larger data sets
7. Paper chemistry: The correlation between the water retention values of fibers by the centrifugation method and maximum content of fiber bonding water by the headspace GC method
8. Paper chemistry: Preparation of carboxymethyl cellulose from tea stalk and its use as a paper-strengthening agent
9. Paper chemistry: Evaluation of the adhesion performance of latex-starch mixtures to calcium carbonate surfaces

10. Paper chemistry: Determination of low molecular weight chlorinated organic compounds in polyamideanine epichlorohydrin solution
11. Coating: Use of spherical silica particles to improve the barrier performance of coated paper
12. Coating: Mixing of oxidized starch and polyvinyl alcohol for surface sizing of paper
13. Environmental impact: Experiment on pretreatment of waste water from bamboo heat treatment by combination of iron-carbon micro-electrolysis and Fenton method
14. Recycling: Circular action treatment (CAT): a new strategy for mechanical treatment of old corrugated container III
15. Papermaking: Numerical investigation of upstream cylinder flow and characterization of forming fabrics

TAPPI JOURNAL, April 2019

1. Guest Editorial: Addressing nanocellulose commercialization needs: R&D collaboration is vital
2. Characterization of the redispersibility of cellulose nanocrystals by particle size analysis using dynamic light scattering
3. From biorefineries to bioproducts: conversion of pretreated pulp from biorefining streams to lignocellullose nanofibers
4. Priorities for development of standard test methods to support the commercialization of cellulose nanomaterials
5. Nanocellulose in Japan: An industrial perspective

TAPPI JOURNAL, May 2019

1. Editorial: Nanocellulose: What's next?
2. Research needs for nanocellulose commercialization and applications
3. Sources, collection, and handling of noncondensible gases in modern kraft pulp mills
4. Nanocellulose: Market perspectives
5. A novel approach for determining the reactivity of dissolving pulp based on the COD method
6. Prehydrolysis kraft pulping of jute cutting and caddis mixture for rayon production
7. Effects of preincubation on the gelatinization of cassava and corn starch suspensions containing sodium hydroxide as a main component of corrugating adhesives

TAPPI JOURNAL, June 2019

1. Editorial: TAPPI Journal reinstates the “Technical Brief” short-form research paper
2. Fundamental molecular characterization and comparison of the O, D0, and E stage effluents from hardwood pulp bleaching
3. The sticky behavior of pulp and paper mill biosludge during drying
4. The evolution of reel statistical methods
5. Fabrication of cross-linked starch-based nanofibrous mat with optimized diameter
6. Large data set analysis to determine refiner plate total cost of ownership

TAPPI JOURNAL, July 2019

1. Editorial: Let's talk tissue
2. Kraft pulp bleaching with a P-stage catalyzed by both bicarbonate and TAED
3. Measurement of the dynamics of fluid sorption for tissue papers
4. Enhancement of processability, surface, and mechanical properties of paper based on rice straw pulp using biopolymers for packaging applications

5. Citrus-based hydrocolloids: A water retention aid and rheology modifier for paper coatings

TAPPI JOURNAL, August 2019

1. Editorial: Foam forming: Technology of many opportunities
2. Upscaling of foam forming technology for pilot scale
3. Polyvinyl alcohol as foaming agent in foam formed paper
4. Real-time monitoring of bubble size distribution in a foam forming process
5. Progress in foam forming technology

TAPPI JOURNAL, September 2019

1. Editorial: A preview of PEERS 2019
2. Rheological characteristics of platy kaolin
3. Critical parameters for tall oil separation I: The importance of ration of fatty acids to rosin acids
4. Flow characteristics of drag-reducing natural bamboo fiber suspensions with minimal environmental load
5. A new technique for the measurement of show-through mottle of fine paper