

Session V: Aesthetic Colorants

Whiteness Solutions for Paper



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Andrew Jackson completed his D.Phil. from Magdalen College, University of Oxford in 1981. He did a post-doctoral stint with Professor Snider at Brandeis University in the US and then with Professor Ley at Imperial College, London. He moved to Minnesota 3M Research Ltd in 1984 where he developed new IR-absorbing dyes optical recording media and worked on photographic dyestuff chemistry. He shifted to Sandoz in 1990, which then became Clariant where he played a leading role in the development of new optical brighteners, fluorescence quenchers and dyestuffs all of which were commercialised. Recognizing his potential Clariant enrolled him in their full time Management Development Program at McColl Graduate School of Business, Queens University of Charlotte, USA in 2003. On his return he was given the responsibility of co-ordinating R&D activities across all four business lines of Clariant's Global Paper Business which included colorants, optical brighteners, process chemicals and surface chemicals. Clariant went through a restructuring in September 2007 and Dr. Jackson became the Global Head of Archroma's OBA, Packaging and Paper Specialties business, a responsibility he continues to fulfill till date.

Dr. Jackson has published 6 papers of which 4 are in JOC. He has more than 25 international patents to his credit.

Abstract

Cost-efficient production of optically-brightened white paper and board demands a thorough understanding of the properties of optical brightening agents (OBAs) and colorants, and their behaviour when applied either at the wetend of the paper machine, or to the surface of paper using size-press or coating methods. This presentation summarizes the role played by OBAs and colorants in building whiteness, brightness and shade - the three characteristics used to describe white paper - before going on to examine how the perception of whiteness differs according to the geographical market. The presentation will then turn to a discussion of strategies for employing OBAs and colorants to best effect when producing white papers.