

Graduate Seminar

Wednesday September 11, 3:00-4:00 p.m., WEB L012



Papermaking And The Kraft Pulping Process

All are welcome to Professor Kevin Whitty's presentation at the Chemical Engineering Graduate Seminar. The title is: "Papermaking And The Kraft Pulping Process." The seminar will be from 3:00 to 4:00 p.m. on Wednesday September 11, in WEB L102. There will be light refreshments afterwards.

Abstract:

Annual production of paper and cardboard is about 400 million tons worldwide, with 90 million tons produced in the United States. The most common method for producing paper is the Kraft process, which is over 100 years old, and involves liberating fibers from wood via a hot, high pressure, alkali-based cook. The chemical cycle in a kraft pulp and paper mill is quite involved and incorporates nearly every process that chemical engineering students learn about, including aqueous reactions, gas-phase reactions, distillation, precipitation, filtration, heat exchange, combustion and production and consumption of steam and electrical power. This presentation introduces the kraft process, fundamental chemistry, unit operations, pulp and paper market, and potential for integrated production of renewable power and fuels.

Biography:

Dr. Whitty is an associate professor in the Department of Chemical Engineering at The University of Utah, where he has worked since 01/01/01. He is also part of the university's Institute for Clean and Secure Energy. He received his Bachelor's degree in Chemical Engineering (1990) from Oregon State University. Dr. Whitty moved to Finland shortly thereafter and received his Masters (1993) and Ph.D. (1997) from Åbo Akademi University in Turku, Finland. For a few years after receiving his Ph.D., he lived in Stockholm, Sweden and managed pilot operations and research projects for Chemrec, a company developing gasification technology.