Patent Protection & Registration

Patents grant property rights on new and useful inventions, allowing the patent holder to prevent others from using, making, or selling that invention without permission for a limited time. U.S. patents are permitted by the U.S. Constitution and are designed to promote scientific progress and invention. By allowing inventors to profit from licensing or selling their patent rights, inventors can recoup their research and development costs and benefit financially from their inventing efforts. There are three main types of patents utility, plant, and design. Utility and plant patents can last up to 20 years, while design patents can last up to 15 years. When a patent expires, the patented material enters the public domain, making it free to use by anyone without a license. U.S. patents are issued by the United States Patent and Trademark Office (USPTO).

U.S. Patent No. 11,707,906 entitled "Predictive Control of Yankee Dryer Chemistry and Creped Product Quality" issued July 25, 2023 to Buckman Laboratories International, Inc. of Memphis, Tennessee. Invented by Daniel Glover of Brighton, Tennessee; John Carter of Mobile, Alabama; Bryan Glover of Memphis, Tennessee; Remi Charron of Memphis, Tennessee and Mark Christopher of Memphis, Tennessee. Abstract: A system and method is provided for proactive process intervention in manufacturing creped products via a chemical feed stage and a Yankee dryer stage. The method includes generating signals from a plurality of online sensors, corresponding to directly measured variables for respective process components such as, e.g., pH, conductivity, and Yankee blade vibration. Models are developed including retrievable information relating combinations of certain directly measured variables to respective quality characteristics of the creped product. The method further includes indirectly determining quality characteristics (e.g., softness, bulk) for the creped product, substantially in real time, based on, e.g., signals corresponding to directly measured variables, and optionally a predicted natural coating potential. An output feedback signal is automatically generated corresponding to a detected intervention event based on the indirectly determined one or more quality characteristics and respective predetermined targets. The feedback signal may automatically regulate chemistry feed characteristics, substantially in real time.