

American Process, Inc. Announces Hydrophobic Nanocellulose Patent Granted by USPTO

ATLANTA, Georgia, U.S., December 5, 2016 — American Process, Inc. announces that the U.S. Patent and Trademark Office has granted U.S. Patent No. 9,499,637 on November 22, 2016 for “NANOCELLULOSE COMPOSITIONS AND PROCESSES TO PRODUCE SAME.”

This composition patent, U.S. Patent No. 9,499,637, covers hydrophobic, lignin-coated nanocellulose, including both cellulose nanocrystals and cellulose nanofibrils. The composition claims are not limited to any particular process to make or use the nanocellulose. There are also claims directed to combination with polymers, carbon fibers, graphene, and other materials. A continuation application, U.S. Patent App. No. 15/353,306, was also filed in November 2016.

According to Dr. Kim Nelson, VP Nanocellulose Technology, “The novel hydrophobic lignin-coated nanocellulose addresses a well-known barrier to commercial utilization of nanocellulose. Conventional nanocellulose is highly hydrophilic and therefore poorly dispersed in non-polar plastics. The low-cost addition of lignin (nature’s second most abundant polymer) to the nanocellulose surface, allows uniform dispersion of nanocellulose in plastics composites. Uniform dispersion exploits the reinforcement potential of this strong, lightweight, biobased nanomaterial.”

API’s CEO Dr. Theodora Retsina remarks, “API’s suite of technologies provide flexible biorefinery platforms to economically produce various chemicals, materials, sugars, fuels, and energy from lignocellulosic biomass. Nanocellulose in particular offers a tremendous opportunity to create substantial value for biorefineries globally, including transforming existing pulp and paper mills. Nanocellulose is a novel material that has applications both in existing fields such as plastic reinforcement, rheological modifiers and functional polymers as well as in the emerging fields of smart materials, 3D printing and tissue engineering. API is one of the technology leaders in the nanocellulose revolution. Using our uniquely featured nanocellulose, we are working with manufacturers in various fields that are introducing nanocellulose into their product formulations.”

API has been an active biorefinery innovator for over two decades and has several technologies on the market. API’s IP portfolio now includes 40 granted patents and about 300 published and unpublished patent applications in the United States, Europe, Asia, Brazil, and other countries, as well as proprietary know-how and trade secrets, according to Dr. Ryan O’Connor, API’s CIPO.

Additional information is online at www.americanprocess.com/bioplus. For more information about API’s nanocellulose technologies, please contact:

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