A method for producing plant-based drinking bottles from FD-CA

04.05.2017 - VTT Technical Research Centre of Finland has developed an environmentally sound and economical method for producing furan dicarboxylic acid (FDCA) from plant sugars for the production of drinking bottles, paints and industrial resins, for example. This technology enables production of plant-based products.

VTT has patented the method for producing furan dicarboxylic acid (FDCA), the monomer for PEF polymers, from sugar or sugar waste. Thanks to the solid acid catalyst and biobased solvent with short reaction time, the method provides a considerable reduction of toxic waste compared to traditional methods.

The method can be scaled-up to industrial purposes without substantial investments, and it has already raised a lot of interest in industry.

The main production material of drinking bottles is still oil-based PET although there has been news on alternatives based on renewable materials during the last few years. VTT’s new method provides a new route for the packaging and beverage industries to expand the use of renewable materials in their production.