

Anellotech's Technology Converts Lay's Potato Chip Bag into Key Chemicals Required for Plastic Bottles



Pearl River, NY, USA, 27 February 2020 – Sustainable technology company Anellotech has announced that a laboratory demonstration of its Plas-TCat[™] technology – which transforms mixed plastic waste directly into chemicals – successfully converted a Lay's Barbeque Potato Chip (PepsiCo) bag into paraxylene, the primary chemical used to make virgin PET for beverage bottles. The conversion also had high yields of benzene, toluene and olefins used to make a range of plastics, including polyethylene, polypropylene, nylon, ABS and polycarbonate.

Consumer goods brand owners in the beverage, textile, food and cosmetics sectors are setting ambitious 2025-2030 goals to include recycled PET (rPET) content in their products. Used beverage bottles are the main source of rPET – however, not enough beverage bottles are currently produced, collected or recycled to satisfy growing global demand.

By successfully converting multilayer food packaging like potato chip bags and other non-PET waste plastics into chemicals including para-xylene, Anellotech can help brand owners meet their recycled PET content targets.



Plas-TCat[™] has the potential to convert a wide mix of plastics and natural materials – including composite films and multicomponent, single-use packaging like the Lay's Barbeque Potato Chip bag –



directly into commodity chemicals. From the same mixed plastic feedstock, the new process can be adjusted to two different production modes: 'Hi-Olefins' which emphasizes the production of olefins such as ethylene and propylene or 'Hi-BTX' which will produce mostly aromatics like BTX (benzene, toluene and xylene) and paraxylene – the key component needed for PET.

David Sudolsky, President & CEO of Anellotech, said "This is a world first, a significant step forward for our Plas-TCat technology, solving two major problems at once – expanded rPET supply and efficient, large-scale recycling of single use packaging (including PE, PP and multilayer films). In addition, we are producing the same chemicals used today to make most major plastics. Our unique approach features an economical zeolite catalyst and heat in one fluid bed reactor to make commodity chemicals directly from plastic waste. Contrast this with companies making pyrolysis oils from plastics which must be upgraded at a chemical plant. By leveraging our lab and TCat-8[®] pilot systems – used to develop Anellotech's Bio-TCat process for making bio-aromatics from wood – we are on track for an accelerated Plas-TCat program. Anellotech is currently seeking R&D funding from brand owners and other strategic investors to further develop the process.

Want to find out more? Consult a <u>detailed Plas-TCat presentation on our website</u> and <u>check out our</u> <u>'About Anellotech' video</u>. If you're interested in having your plastic product screened for Plas-TCat, you can also email <u>Plas-TCat@anellotech.com</u>."

About Anellotech

Anellotech (<u>http://www.anellotech.com</u>) is a sustainable technology company focused on commercializing the innovative production of cost-competitive renewable chemicals and fuels from non-food biomass or waste plastics. Its patented Bio-TCat[™] technology is an efficient thermal catalytic process for converting biomass into benzene, toluene and xylene, which are chemically identical to their petroleum-based counterparts. The process has been extensively demonstrated with loblolly pine feedstocks at Anellotech's TCat-8[®] pilot plant in Silsbee, Texas. Engineering work to design the first commercial plant is underway by Anellotech and its R&D, engineering and licensing partners IFPEN and Axens.

The Bio-TCat[™] platform is now being leveraged for Plas-TCat[™], a development-stage process technology aiming to convert mixed waste plastics into commodity chemicals such as olefins and aromatics, the primary chemicals used to make plastic packaging and other products.

For further information contact:

David Sudolsky Anellotech Inc. +1 (845) 735 7700 DSudolsky@anellotech.com