

The **3rd Biodegradable Plastic Technology and Raw Materials Forum 2021** will be held on September 23-24 in Dalian, China.

Biodegradable plastics can be decomposed into carbon dioxide and water quickly under certain conditions, which is an effective way to deal with white pollution and plastic pollution in the ocean. In January 2020, the National Development and Reform Commission and the Ministry of Ecology and Environment issued the *Opinions on Further Strengthening the Control of Plastic Pollution*, prohibiting and restricting the production, sale, and use of some disposable non-biodegradable plastic products. By 2021, all provinces, municipalities, and autonomous regions in China had issued local plastic pollution control policies, giving a solid boost for the development of the biodegradable plastics market.

Biodegradable plastics can be made from biological materials, petrochemicals, or coal chemical materials. The biodegradable plastics made from biomass mainly include polylactic acid (PLA), polyhydroxyalkanoate (PHA), and the like. The biodegradable plastics made from coal/petroleum are mainly dibasic acid glycol copolyester series (including PBAT/PBS/PBSA/PBST), polyglycolic acid (PGA), polycaprolactone (PCL), polypropanolactone (PPL), and CO₂ copolymers (PPC, PPC-P), etc.

Polylactic acid (PLA) and PBAT are the typical representatives of biodegradable plastics from biological materials and fossil materials, respectively. The planned capacity of PLA under construction is more than 1 million tons, and the planned capacity of PBAT/PBS is as high as 8 million tons, bringing substantial market opportunities for technology and equipment suppliers. At the same time, the pricing, supply, and demand of lactic acid, lactide, BDO, adipic acid, succinic acid, the raw materials of polylactic acid, and the core raw materials of PBAT/PBS have become the focus of industry attention.

The PPC, PHA, and PGA industries also saw significant progress in 2021. In January 2021, Boda Oriental's 50,000-ton/year PPC project test run was successful. In February 2021, Bluepha completed the financing of nearly 200 million yuan, which will be used to construct a 10,000-ton PHA plant. In April 2021, China Energy signed a letter of intent with 10 customer representatives to purchase and sell PGA products. Upon this achievement, the 50,000 tons/year PGA demonstration project in Yulin is expected to be put into production by the end of 2021.

Biodegradable plastics can be used in disposable products, such as plastic packaging, agricultural mulch, disposable tableware, etc. It can also be applied to durable and semi-durable products. Compared with traditional plastics, biodegradable plastics still have a gap in heat resistance, toughness, high strength mechanical properties, high wear-resistant processing, and other aspects. Different biodegradable plastics can improve the overall properties and broaden the application scenarios through compound modifications.

The **3rd Biodegradable Plastic Technology and Raw Materials Forum 2021** will be held on September 23-24 in Dalian, China. The conference will cover a wide range of topics including the policy trends and market prospects of biodegradable plastics, the production technology of mainstream biodegradable plastics -- PLA, PBAT/ PBS, PPC, PHA, polyglycolic acid (PGA), polyhexolactone (PCL), biodegradable plastic raw materials: lactic acid, lactide, BDO, PTA, AA, SA, PO. Other core topics including the degradation condition and mechanism of biodegradable plastics, testing and certification of biodegradable plastics, physical recovery, chemical recovery technology of biodegradable plastics, etc.

Themes:

The development prospects of biodegradable plastics

——JOYOU Chemical Technology and Engineering Co.,LTD.(Confirmed)

Market outlook of PGA biodegradable plastics

—— Sinopec Great Wall Energy and Chemical Co., Ltd. He Zuoyun Deputy General Manager (Confirmed)

Carbon dioxide-based low-cost biodegradable plastics: one of the contributions of carbon neutrality

——School of Chemical Engineering, School of Materials, Sun Yat-sen University. Meng Yuezhong, Dean (Confirmed)

PHA synthesis and scale-up production based on next-generation industrial biotechnology

——School of Biological Science and Engineering, South China University of Technology. Ye Jianwen, Associate Professor (Confirmed)

Wanhua biodegradable material application and development progress sharing

——Wanhua Chemical Group Co.,Ltd. Zhao Cong (Confirmed)

International biodegradation certification system and European directive on single-use plastics

——DIN CERTCO Frank Tian, Sales Manager (Confirmed)

Based on the lactic acid industry chain, carbon-neutral biomaterials industry development opportunities

——China BBKA Group Corp. Chen Liping, Deputy General Manager (Confirmed)

Polylactic acid and downstream applications

——Natureworks (Hold)

Analysis on the 10 million-ton capacity potential of coal-based biodegradable plastic polyglycolic acid

——ASIACHEM Consulting Zheng Chunlin, Deputy General Manager (Confirmed)

Technology of large-scale production of bio-based succinic acid by biological fermentation

——Shandong Landian Biological Technology Co., Ltd. (Hold)

PLGA process technology solutions and industrial design

——Shanghai DODGEN Chemical Technology Co., Ltd. (Confirmed)

Technical progress and application prospects of PGA industrialization

——Jiangsu Jinju Alloy Material Co., Ltd. Liang Peng, Vice President of Technology (Confirmed)

Biodegradable plastic made from PPC polyol and its application

——JIANGSU JINLONG-CAS Environmental Protection New Material Co., Ltd. Xu Kun, General Manager (Confirmed)

Low-cost PHA biodegradable material production technology

——Beijing Weigou Workshop Biotechnology Co., Ltd. Lan Yuxuan, Co-founder (Confirmed)

Technology of hydrogenation of maleic anhydride to succinic anhydride and co-production of succinic acid

——School of Chemistry and Chemical Engineering, Shanxi University. Zhang Yin, Associate Professor (Confirmed)

The preparation process and economic analysis of BDO, the key raw material of PBAT

—— East China Engineering Science and Technology Co., Ltd. Feng Yufeng, Deputy Technical Director (Confirmed)

Application of built-in rotary evaporator in the synthesis of lactide from lactic acid

——Jingjiang Hecheng Pharmaceutical Equipment Manufacturing Co., Ltd. Xu Jiantao, General Manager (Confirmed)

New biodegradable plastic PPC and PPL technology

——Novomer. Sun Zhan (Confirmed)

(Title to be determined)

—— Uhde Inventa-Fischer (Confirmed)

Introduction of the catalyst for hydrogenation of maleic anhydride and the process of hydrogenation of maleic anhydride to succinic acid

—— China Petroleum & Chemical Corporation Dalian Research Institute of Petrochemical Industry. Dr. Li Lanpeng, Director (Confirmed)

Polycaprolactone properties, synthesis process and application

—— Shenzhen Esun Industrial Co.,Ltd. Yang Yihu (Confirmed)

Visit to Dalian Changxing Island (Xizhong Island) petrochemical industrial base Hengli petrochemical (Changxing Island) industrial park and Xizhong Island petrochemical industrial park

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