

第38回 グリーンマテリアル成形加工研究センターについて —38th Green MAP Seminar—

第38回グリーンマテリアル成形加工研究センターの講演会を次世代自動車用プラスチック素材加工研究センター、有機材料システム研究機構で開催します。東華大学 (Donghua University) のProf. Zhu Meifangの講演会を下記のとおり開催いたしますので、お誘い合わせのうえご出席くださいますようお願い申し上げます。

Date and Time : Monday, March 6, 10:30~12:00

Place : 4F-406 Seminar Room, GMAP Center

Organic-inorganic Hybrids: From Design to Fiber Forming Zhu Meifang

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ABSTRACT

Nano fibers consist of nano scale fibers and nano hybrid fibers. The resulting nanofibers by electrospinning were hard to produce in a large scale, due to its small yield scale, high cost and other difficult problems. In contrast, organic-inorganic nano hybrid fibers have been widely concerned for their less adding, easier functionalization and industrialization. In our works, we introduce methods to prepare functionalized nano hybrid fibers and fabrics through adding nano materials, aiming to design structure of the hybrid materials from molecular, and seek a new way to get functional nano hybrid fibers. Including

- antimicrobial polyester (PET) for industrial production
- multifunctional polyamide (PA) fiber with anti-ultraviolet, antibacterial and far infrared properties
- flame retardant regeneration PET fiber
- polylactic (PLA) fibers with good spinnability and high mechanical ,
- polyphenylene sulfide (PPS) fibers with anti-UV functions, etc.

Combining both the advantages of organic and inorganic phases, polymer-based hybrid functional fibers are a hot research topic in materials science and engineering and have broad applications in fields of intelligent devices, security protection, biomedicine and energy.

BIOGRAPHY OF THE SPEAKER

Professor Zhu Meifang graduated in department of chemical fibers, Textile University of China in July 1986, she won the Phd degree of University of Dresden in Germany joint with Donghua University in September 1999. Since March 2010, she was the dean of the College of materials science and engineering in Donghua University, and director of the State Key Laboratory for modification of Chemical Fibers & Polymer Materials (from June 2014).

Professor Zhu Meifang has long been engaged in the research of organic inorganic hybrid materials, nano composite hydrogel materials, fiber forming and theoretical research, basic research and application development of biomass fiber and biomedical materials. Until now, she has published more than 230 papers in the *Mater. Chem., Comm. Adv.* and other journals, prepared 6 monograph and authorized more than 100 national invention patents.



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