

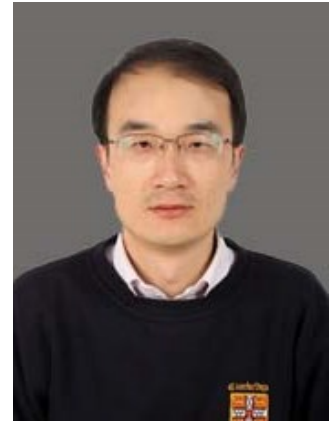


Topic of the Speech:

Multi-Functional Nanofibrous Membrane by subsurface initiated polymerization

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Professor Feng Zhou is a full Professor in Lanzhou Institute of Chemical Physics, CAS and Director of State Key Laboratory of Solid Lubrication. He gained PhD in 2004 and spent three years (2005-2008) in the Department of Chemistry, University of Cambridge as a research associate.

He has published more than 300 journal papers that received more than 15000 citations and has the H-index 66. His research interests include the biomimic surfaces/interfaces of soft matters, drag-reduction and antibiofouling, and bioinspired tribology, functional coatings.

He has gained a number of awards including the “Outstanding Youth Award” of International Society of Bionic Engineering, 2013. He serves as editorial board member of Journal Fiber Bioengineering and Informatics, Tribology International, Tribology online etc.

ABSTRACT SUBMISSION



-For invited speaker only

Multi-Functional Nanofibrous Membrane by subsurface initiated polymerization

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ABSTRACT (NO MORE THAN 500 WORDS:)

Electrospun nanofibrous membrane has the advantages of small pore size, large specific surface area, high porosity, large flux, adjustable surface properties and easy preparation in large area, which has potential application prospects in air particulate filtration, pollutant adsorption, oil-water separation, membrane separation, catalysis and biomedical application filed. In recent years, electrospun nanofibrous materials are gradually becoming industrialized. Here, we prepared a multi-functional electrospun nanofibrous membrane grafted polyelectrolyte brush and its composite by sub-surface initiated atom transfer radical polymerization. It is found that it not only can catalyze the degradation of organic pollutants and dyes in water, but also can achieve the function of oil-water separation, and also has antimicrobial activity. These indicate that this novel membrane has broad and good application prospects in water treatment and other fields.