

第203回講演会
【開催:2018年11月28日(水)】

主催:中国地区化学工学懇話会, 化学工学会分離プロセス部会膜工学分科会

下記の要領で講演会を開催します。多数の方のご参加を頂きますようお願い致します。

記

日時: 2018年11月28日(水) 15:00~16:00
場所: 広島大学工学部 114講義室
交通: 山陽本線西条駅下車、バス15分、大学会館前下車
山陽新幹線東広島駅下車、タクシー10分
広島バスセンターから直行バス約1時間、大学会館前下車

講演: Surface Engineering and Fouling Mitigation of Thin-film Composite Membrane
講師: Prof. Yunxia Hu
State Key Lab of Separation Membrane and Membrane Process
Tianjin Polytechnic University

講演内容:

Membrane-based separation technology, as one of the most effective and efficient technology, has been widely used in many fields including wastewater treatment, seawater desalination, electronic, chemical and pharmaceutical industries. Membrane fouling has strong negative effects on the operational sustainability and the cost-efficiency of membrane process, thus hampering the application of membrane technology. Our research focuses on the development of simple and facile surface engineering approaches to mitigate membrane fouling and the investigation of their applications. My presentation will share several examples that my group successfully developed *in-situ* surface chemistry methods and investigated membrane fouling mitigation performance. The first example is to *in-situ* generate silver nanoparticles on membrane surface inspired by dopamine chemistry, and to incorporate both passive and active moieties on membrane surface for anti-biofouling performance. The second example is to *in-situ* graft nanomaterials including nanoparticles and 3D hyperbranched polyglycerol (hPG) onto polyamide surface through the layer-by-layer (LBL) interfacial polymerization. Our results found that the incorporation of nanomaterials onto membrane surface not only improved the membrane antifouling performance but also enhanced the membrane permeability.

参加費: 無料

申込先: FAX または電子メールでお申し込み下さい。

中国地区化学工学懇話会

TEL 082-424-7718, FAX 082-424-5494, E-mail: ysasa@hiroshima-u.ac.jp