

## 一、个人简介：

王湛，男，汉，工学博士，教授，博士研究生指导教师，《膜科学与技术》杂志编委(2004.12-2009.7)，《环境科学与技术》杂志特邀编委(2009.1-2010.12)。1987年毕业于华东化工学院，1990年在清华大学化学工程系攻读硕士研究生期间被选拔为出国留学预备生。1991年至1995年，国家公派俄罗斯圣彼得堡工艺大学学习，获工学博士学位。1995年9月来北京工业大学工作，2005年晋升为教授，2006年获北京市教委中青年骨干教师称号，2007年获博士生导师资格。2009年3月至2010年3月，在美国Rensselaer Polytechnic Institute做访问学者。主持包括国家基金、市基金、市教委项目在内的科研项目多项。

## 二、研究方向：

- 膜通量的预测；
- 膜过滤过程的优化；
- 抗污染膜的制备；
- 膜污染机理与膜清洗；

## 三、科研成果：

对膜的过滤行为进行定量研究，取得了一系列有价值的成果；通过传统物理共混制膜过程中引入化学反应生成气泡实现了对膜孔径的均匀人为控制，提高了膜的抗污染性能。共发表学术论文70多篇，其中以第一作者或通讯作者发表学术论文60多篇，包括20篇被“SCI”收录论文和7篇被“EI”收录论文。主编参编专著共计三部，主编教材及教辅用书二部，其中《膜分离技术基础》一书已被20多本专业书籍引用，并被国内外期刊论文引用超过600次，2008年被评为北京市精品教材。2008年和2003年分别获北京工业大学优秀教育教学成果奖一等奖和三等奖各一项，2010年获北京工业大学教学优秀奖。

## 四、主要代表性论(著)：

### 编著及教材类：

1. 王湛，《膜分离技术基础》(2008年北京市精品教材)，化学工业出版社，2000年第一版，2006年第二版。
2. 王湛，《化工原理800例》，国防工业出版社，2005年第一版，2007年第二版。

### 膜通量预测模型：

1. Wang Zhan, Martsule N.A. Flisyuk O.M Evaluation of the Relative Permeability of a Precipitate in the Separation of Suspension on Membrane .J. Appli Chem.(Russia ), 65 (1992): 2155-2158 ( Ван ЧжаньМарцулеви́ч Н.А.,Флисюк О.М.. Об оценке относительной проницаемости осадка при разделении суспензии на мембранах. ЖПХ,1992, 65(9): 2155 -2158 ).
2. Zhan Wang, Dezhong Liu, Wenjuan Wu, ect. Study of dead-end Microfiltratio flux variety law, Desalination, 201(2006): 175-184.
3. Zhan Wang, Jinshu Chu, Xinmiao Zhang, The study of cake model during stirred dead-end microfiltration, Desalination, 217 (2007): 127-138.
4. Zhan Wang, Yanjie Cui, Wenjuan Wu, Shulan Ji, Jinmiao Yao. The convective model of flux prediction in hollow-fiber module for steady-state cross-flow microfiltration system, Desalination 238 (2009)192-20.
5. Zhan Wang, Jin-shu Chu, Wen-juan Wu, Jin-miao Yao. Study of unsteady state flux prediction in crossflow microfiltration, Desalination 238 (2009) 290-301.
6. Xuejie Xi, Yanjie Cui, Zhan Wang, Jianhua Qian, Jing Wang, Liying Yang, Shanshan Zhao. Study of dead-end microfiltration features in sequencing batch reactor (SBR) by optimized neural networks. Desalination 272 (2011) 27-35.
7. Wang Zhan, Wu Wenjuan, Zhang Xinmiao, Liu Dezhong. Research progress of flux prediction model s of microfilt ration membrane.

8. Zhang Xinmiao, Wang Zhan, Liu Mei. Recent Development on Flux Prediction Model on Dead- end Microfiltration. Journal of Beijing University of Technology(China). 2005, 31(2): 179-185.

#### 工艺操作条件的定量化:

1. Zhan Wang, Jinmiao Yao, Chong Zhou, Jinshu Chu. The Influence of Various Operating Conditions on the Permeation Flux During Dead-end Microfiltration, Desalination, 212(2007):209-218.

2. Zhan Wang, Jinmiao Yao Jinshu Chu Yanjie Cui Yanli Liang. The influence of various operating conditions on specific cake resistance in the crossflow microfiltration of yeast suspensions. Desalination and water research, 1 (2009) 237-247

3. Zhan Wang, Jinshu Chu, Yin Song, Yanjie Cui, Hu Zhang, Xinqi Zhao, Zhaohui Li, Jinmiao Yao. Influence of operating conditions on the efficiency of domestic wastewater treatment in membrane bioreactors. Desalination, 245(2009):73-81).

4. Yao Jinmiao, Wang Zhan, Sun Guangmin, Cheng Deming, Chu Jinshu, Zhang Hu, LI Zhaohui. A study on predicting specific resistance for yeast suspensions in dead-end microfiltration. Journal of Chemical Industry and Engineering (China). 2008, 9 (6):1430-1435.

5. Sun Guangmin, Zhang Canhui, Wang Zhan, Wang Chun, Yu Guangyu, Liu Xiaopeng, Cui Yanjie. Flux prediction of micro-filtration devices based on genetic neural network. Journal of Chemical Industry and Engineering (China). 2009, 60(9):2237-2242.

6. Ye Shao, Yao jinmiao, Wang Zhan, Liu Xingchun, Liu Dezhong, Zhang Hu, Li Zhaohui. Application of Linear Multi-regression Model for Specific Resistance Study in the Dead-end Microfiltration. Journal of Beijing University of Technology(China). 2007, 33(11): 1193-1197.

7. Wang Zhan, Yao Jinmiao, Ye Xiao, Chu Jinshu, Cui Yanjie. Study on influence of operating conditions on ultrafiltration polysaccharide of agaricus blazei muril. Journal of Beijing University of Technology (China). 2008, 34(10):1105-1110.

#### 膜制备研究:

1. Shuwei Wang, Zhan Wang, Yang Zhang, ect. Experimental study on the control of pore sizes of porous membrane by chemical Methods, Desalination, 177(2005): 7-13

2. Chong Zhou, Zhan Wang, Yanli Liang, ect. Study on the control of pore sizes of membranes using chemical methods. Part II. Optimization factors for preparation of membranes, Desalination, 225 (2008): 123-138

3. Yanli Liang, Zhan Wang, Ye Liu, Study on the control of pore sizes of membranes using chemical methods Part III. The performance of carbonates and bicarbonates in the membrane-making process by the chemical reaction. Desalination 267 (2011) 42-48.

4. Zhou Chong, Wang Zhan, Yao Jinmiao, Liu Ye. Optimization of preparing PVDF/ CA blend microfiltration membrane by linear multi-regressio. Journal of Chemical Industry and Engineering (China). 2007, 58(7): 1840-1845

5. Zhou Chong, Wang Zhan, Zhang Yang, Yao Jinmiao. Preparation of PVDF/ CA blend microfiltration membrane. Membrane science and Technology (China), 2007, 27(5):31-35.

6. Zhang Yang, Wang Zhan, Ji Shulan, Yao Shizhong, Peng Yuelan, Qin Zhengping, Zhang Han. Preparation of PDMS - PS oxygen - enrichmene membrane and observation of structure of the support membrane. Membrane Science and Technology(China). 2007, 27(3)

7. Zhang Yang, Wang Zhan, Ji Shulan, Yao Shizhong, Qin Zhenping. Research on the connection between prepare conditions of the polysulphone base membrane and capability of the PDMS-polysulphone composite membrane. Chemical Research and Application (China). 2006, 18(6):653-658

8. Wang Shumei, Wang Zhan, Zhang Xinmiao, Liu Shuxiu, Wu Wenjuan, Liu Dezhong. Study of the preparation of PVDF/ PMMA/ CA blend membrane and its properties. Membrane Science and Technology(China). 2005, 25(3): 63-67

9. Wang Zhan, Wang Shumei, Zhang Xinmiao, Qian Ying. Experimental study on the pressure behavior in flat laminar membranous channels. Membrane Science and Technology(China). 2003, 23(2): 62-64

10. Wang Zhan, Lv yawen, Wang Shumei, Yin Ni, Liu Shuxiu, Qian Ying. Study on the preparation and characteristics of PVDF/ CA blend ultrafiltration membrane[J]. Membrane Science and Technology(China). 2002,22(6): 4-8

11. Wang Meng, Wang Zhan, Wang Shumei, Wang Shusen. Study on silicon molecular sieve membranes used for enriching oxygen. Membrane Science and Technology (China). 2002, 22(3): 39-42.

#### 膜污染机理与膜清洗

1. Zhan Wang, Shanshan Zhao, Feng Liu, Liying Yang, Yin Song, Xiuyan Wang, Xuejie Xi. Influence of operating conditions on cleaning efficiency in sequencing batch reactor (SBR) activated sludge process — water rinsing introduced membrane filtration process[J]. Desalination, 2010, 259:235-242

2. Liying Yang, Zhan Wang, Yongjun Sun, Zhang Hu, Shanshan Zhao, Xiuyan Wang, Wenjuan Li, Xuejie Xi, Jing Zhang, Zheng Pe. Influence of various operating conditions on cleaning efficiency in sequencing batch reactor (SBR) activated sludge process. Part II: Backwash and water rinsing introduced membrane filtration process. Desalination 272 (2011) 76-84.

3. Zhan Wang, Yin Song, Mei Liu, Jinmiao Yao, Yuanyuan Wang, Zhang Hu, Li Zhaohui. Experimental study of filterability behavior of model extracellular polymeric substances solutions in dead-end membrane filtration[J]. Desalination, 2009, 249:1380-1384.

4. Xiuyan Wang, Zhan Wang, Yuenan Zhou, Xuejie Xi, Wenjuan Li, Liying Yang, Xuyan Wang. Study of the contribution of the main pollutants in the oilfield polymer-flooding wastewater to the critical flux[J]. Desalination, 2011(273)375-385.

#### 联系方式:

E-mail: wangzh@bjut.edu.cn

Tel: 010-67396186

Zhan Wang, Shanshan Zhao, Feng Liu, Liying Yang, Yin Song, Xiuyan Wang, Xuejie Xi. Influence of operating conditions on cleaning efficiency in sequencing batch reactor (SBR) activated sludge process — water rinsing introduced membranefiltration process. *Desalination* 259 (2010) 235–242.

关闭

Copyright © 2001, Beijing University of Technology. All rights reserved.