

Laboratory of Bioresource Process Engineering

廃水処理及びバイオマス変換

Wastewater Treatment and Biomass Conversion

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張研究グループ



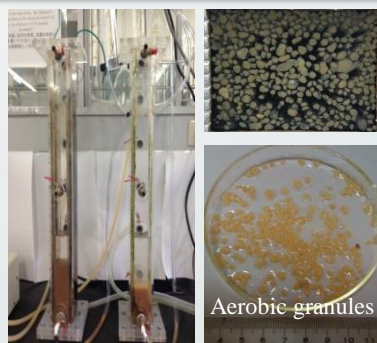
Adsorbents Development

(Heavy metals, ammonium, phosphate, etc)

- Ding *et al.*, Water Res 47 (2013) 2563-2571
- Ding *et al.*, ACS Appl Mater Interf 5 (2013) 10151-10158
- Yang *et al.*, Chem Eng J 220 (2013) 367-374
- Zhao *et al.*, J Colloid Interf Sci 393 (2013) 264-270
- Ding *et al.*, Chem Eng J 236 (2014) 17-28
- Ding *et al.*, J Hazard Mater 270 (2014) 187-195



Electrochemical and Biological Nutrient Removal (N & P)



- Li *et al.*, Bioresour Technol 101 (2010) 6553-6557
- Zhang *et al.*, J Hazard Mater 163 (2009) 1090-1095
- Li *et al.*, J Hazard Mater 171 (2009) 724-730
- Zhao *et al.*, J Hazard Mater 192 (2011) 1033-1039
- Lei *et al.*, Bioresour Technol 128 (2013) 774-778

Heavy Metals Immobilization and Waste Reclamation (Using hydrothermal treatment)



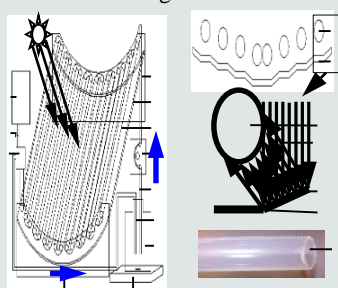
- Shi *et al.*, Bioresour Technol 137 (2013) 18-24
- Shi *et al.*, Bioresour Technol 149 (2013) 496-502
- Shi *et al.*, Bioresour Technol 159 (2014) 176-181

Biogas Production from Organic Solid Wastes

(Sewage sludge, animal manure, and crop residues)



Solar biogas reactor



- Liu *et al.*, Water Res 47 (2013) 4986-4992
- Liu *et al.*, Bioresour Technol 137 (2013) 57-62
- Liu *et al.*, Int J Hydrogen Energ 38 (2013) 7246-7252
- Liu *et al.*, Bioresour Technol 155 (2014) 198-203
- Qian *et al.*, Waste Manage 34 (2014) 530-535

Functional Food Materials Production and Conversion

(Using solid wastes from food processing industries)



- Shi *et al.*, Carbohyd Polym 95 (2013) 200-206
- Li *et al.*, Ind Crop Prod 50 (2013) 666-672
- Shi *et al.*, Food Bioprocess Technol 6 (2013) 1856-1867
- Shi *et al.*, Int J Food Sci Technol 47 (2012) 1215-1221

Project Info: Ammonia recovery from organic wastes and realization of dry anaerobic biogasification with mitigation of ammonia inhibition (JSPS Grants-in-Aid for Scientific Research (B) No. 25281048)