

CURRICULUM VITAE

NAME : **TAO, RAN**
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EDUCATION

2019 Ph.D., Environmental Technology, Tampere University, Tampere, Finland
2015 MS, Energy and Environmental Technology, University of South-Eastern Norway, Porsgrunn, Norway
2013 BS, Environmental Engineering, Hubei University, Wuhan, China

PROFESSIONAL EXPERIENCE/ACHIEVEMENTS

10/2020 – now **Wai Environmental Solutions AS**

Process Engineer

WAI Environmental Solutions AS is a Norwegian technology company focusing on developing and implementing environmental technologies within wastewater treatment, bio-sludge treatment, nutrients and resources recovery, hazardous waste and soil remediation and aquaculture.
Responsible for development of technology and solutions, R&D projects, supporting sales activities, etc.

10/2015 – 6/2019 **Tampere University, Tampere, Finland**

Researcher

- Planning research, designing and conducting experiments on nutrients and organic matter removal from wastewaters with microalgae in batch bottles.
- Attending seminars and conferences.
- Writing peer-review scientific papers and dissertation.
- Defending doctoral dissertation.

2/2018 – 4/2018 **IHE Delft, Delft, the Netherlands**

Visiting Doctoral Researcher

- Designing and conducting experiments about combined effects study of iron and sulfur on microalgal growth and nutrients removal in batch bottles

6/2017 – 1/2018 **University of South Florida, Tampa, the U.S.**

Visiting Doctoral Researcher

- Planning research, designing and conducting experiments about zeolite effect on microalgal growth and ammonium removal efficiency in a continuous-flow membrane photobioreactor.
- Writing peer-review scientific papers

9/2014 – 7/2015 **University of Southeast Norway, Porsgrunn, Norway**

Research assistant

- Conducting waste stream and gas analyses and reporting data analyses
- Worked with Japanese manufacturer on MBR module/cassette design improvement.

5/2011-2/2013 **Hubei University, Wuhan, China**

Laboratory assistant

- Sampling from water bodies such as lakes and rivers
- Conducting pretreatment of corns and soils before further analyses
- Running wastewater analyses in the laboratory

PUBLICATIONS

1. Tao, R., Bair, R., Pickett, M., Calabria, J.L., Lakaniemi, A.M., van Hullebusch, E.D., Rintala, J.A., Yeh, D.H., 2020. Low concentration of zeolite to enhance microalgal growth and ammonium removal efficiency in a membrane photobioreactor. *Environmental Technology*, 1-14.
2. Tao, R., Bair, R., Lakaniemi, A.M., van Hullebusch, E.D., Rintala, J.A., 2019. Use of factorial experimental design to study the effects of iron and sulfur on growth of *Scenedesmus acuminatus* with different nitrogen sources. *Journal of Applied Phycology*, 1-11.
3. Tao, R., Lakaniemi, A.M., Rintala, J.A., 2017. Cultivation of *Scenedesmus acuminatus* in different liquid digestates from anaerobic digestion of pulp and paper industry biosludge. *Bioresource Technology*, 245, 706-713.
4. Tao, R., Kinnunen, V., Praveenkumar, R., Lakaniemi, A.M., Rintala, J.A., 2017. Comparison of *Scenedesmus acuminatus* and *Chlorella vulgaris* cultivation in liquid digestates from anaerobic digestion of pulp and paper industry and municipal wastewater treatment sludge. *Journal of Applied Phycology*, 29(6), 2845-2856.
5. Zhang, J., Li, Z.H., Chen, J., Wang, M., Tao, R. and Liu, D., 2014. Assessment of heavy metal contamination status in sediments and identification of pollution source in Daye Lake, Central China. *Environmental Earth Sciences*, 72, 1279-1288.

CONFERENCE PAPERS

1. Tao, R., Bair, R., Pickett, M., Calabria, J., Lakaniemi, A.M., van Hullebusch, E.D., Rintala, J.A., Yeh, D.H. Advantages and disadvantages of zeolite addition to a continuous-flow membrane photobioreactor used for microalgal cultivation. Joint G16-ABWET Conference, 6-7 December 2018, Naples, Italy
2. Tao, R., Lakaniemi, A.M., Rintala, J.A. High biomass production from anaerobically digested pulp and paper mill biosludge using *Scenedesmus acuminatus*. 7th International Conference on Algal Biomass, Biofuels and Bioproducts, 18-21 June 2017, Miami, USA.
3. Tao, R., Lakaniemi, A.M., Rintala, J.A. Optimization of microalgae cultivation in liquid digestate from pulp and paper mill. 1st International ABWET conference: Waste-to-Bioenergy: Applications to Urban Areas, 19-20 January 2017, Paris, France.

LANGUAGES

- English – professional working proficiency, both written and spoken
- Norwegian (Bokmål) – elementary proficiency
- Chinese – mother tongue