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Microbial synthesis and degradation of polyhydroxyalkanoates (PHAs)

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Appendices

Curriculum vitae

Acknowledgements

Personal information

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Education

09/2011-09-07/2015

Hebei Normal University, **B.Sc.** in Bioscience

Project: Established obese model and optimized ingredients in mouse

09/2015-07/2018

Northwest A&F University, **M.Sc.** in Microbiology

Project: Improve the electricity generation and isolate strains in MFC

10/2018-02/2023

University of Groningen, **Ph.D.** in Microbiology

Project: PHA synthesis and degradation by microbes

Teaching experience

2014 Teaching at a junior school for a biological course

2016 & 2017 Guiding two bachelor students to finish their experiment and thesis (China)

2021 & 2022 Guiding bachelor and master to finish investigation and thesis (The Netherlands)

Publications

1. **Zhou, W.**, Colpa, D.I., Geurkink, B., Euverink, G.J.W., Krooneman, J., 2022. The impact of carbon to nitrogen ratios and pH on the microbial prevalence and polyhydroxybutyrate production levels using a mixed microbial starter culture. *Science of the Total Environment*.

2. Colpa, D.I., **Zhou, W.**, Krooneman, J., Euverink, G.-J.W., 2020. *Thauera aminoaromatica* MZ1T Identified as a Polyhydroxyalkanoate-Producing Bacterium within a Mixed Microbial Consortium. *Bioengineering*.

3. **Zhou, W.**, Colpa, D.I., Offringa, Ruben., Rohrbach, Leon., Euverink, G.J.W., Krooneman, J. Insight into polyhydroxyalkanoate (PHA) production from xylose and extracellular PHA degradation by a thermophilic *Schlegelella thermodepolymerans*. (Submitted)

4. **Zhou, W.**, Bergsma, S., Colpa, D.I., Euverink, G.J.W., Krooneman, J. Polyhydroxyalkanoates (PHAs) synthesis and degradation by microbes and applications towards a circular economy. (Submitted)

5. **Zhou, W.**, Salvador, B.L., Euverink, G.J.W., Deuss, P.J., Krooneman, J. Polyhydroxyalkanoate (PHA) production from xylan and biorefined fractions of hemicellulosic biomass by *Schlegelella thermodepolymerans*. (Submitted)

6. Salvador, B.L., **Zhou, W.**, Colpa, D.I., Smit A, Euverink, G.J.W, Krooneman, J, Deuss,

P.J. Equilibrium is the key: A new mild flow-through grass fractionation process and microbial conversion to bioplastics. (Preparation)

7. **Zhou, W.**, Euverink, G.J.W., Krooneman, J. Comparison of Polyhydroxyalkanoates (PHAs) production from cellobiose and glucose by *Schlegelella thermodepolymerans*. (Preparation)

8. **Zhou, W.**, Euverink, G.J.W., Krooneman, J. Co-culture of thermophilic *Thermobifida fusca* and *Schlegelella thermodepolymerans* for PHA production from cellulose. (In progress)

9. **Zhou, W.**, Colpa, D.I., Bergsma, S., Prats, M., Euverink, G.J.W., Krooneman, J. Polyhydroxyalkanoates (PHAs) degradation under different environments. (In progress)

10. **Zhou, W.**, Xue Y., Wang Z., Sun J., Wang Y., Guan Z. Study on a combination of corn active components for weight loss in mice. (Preparation)

11. Sun, J., Monreal S. G., **Zhou, W.**, Portale, G., Kamperman, M.. 2022. Water-processable, stretchable, and ion-conducting coacervate fibers from keratin associations with polyelectrolytes. ACS Sustainable Chemistry & Engineering.

12. Sun, J., Monreal S. G.; Yan, F., **Zhou, W.**, Rudolf, P., Portale, G., Kamperman, M.. 2022. Bioinspired processing of keratin into upcycled fibers through pH-induced coacervation. ACS Sustainable Chemistry & Engineering.

13. Liu, Z., Zhou, L., Chen, Q., **Zhou, W.**, Liu, Y., 2017. Advances in Graphene/Graphene Composite Based Microbial Fuel/Electrolysis Cells. Electroanalysis.

14. Zhou, L., Deng, D., Zhang, Y., **Zhou, W.**, Jiang, Y., Liu, Y., 2017. Isolation of a facultative anaerobic exoelectrogenic strain LZ-1 and electron transfer mechanism in situ by linking UV/Vis spectroscopy and electrochemistry. Biosensors and Bioelectronics.

Conference

Zhou, W., Colpa, D.I., Euverink, G.J.W., Krooneman, J. Microbial production and degradation by thermophilic *Schlegella thermodepolymerans*. ISBP conference, Switserzeland, September 2022. (Poster& Short oral presentation)

Zhou, W., Colpa, D.I., Euverink, G.J.W., Krooneman, J. PHA production and degradation in bacteria. ENTEG, Seminar, Groningen, The Netherlands, April 2022. (Oral)

Zhou, W., Colpa, D.I., Euverink, G.J.W., Krooneman, J. Control Bioplastic PHAs Production by a Mixed Microbial Culture. ENTEG, Seminar, Groningen, The Netherlands, October 2019. (Poster)

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