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Ansættelser og uddannelse

Visiting Academic. Illinois Sustainable Technology Center, University of Illinois at Urbana-Champaign, USA.
Oct. 2014 → Dec. 2014

Post-Doctoral Research Assistent on project.
Jul. 2013 → Sep. 2013

PhD in Process Engineering, Energy Institute, University of Leeds.
2013

Research at the University of Sidney. The School of Chemical and Biomolecular Engineering, Australia. Research placement through the World University Network.
Apr. 2011 → Jun. 2011

Master of Engineering, Energy and Environmental Engineering; University of Leeds, UK., Classification awarded: First Class Honours.
Sep. 2009

ERASMUS Program, Sustainable Energy Engineering, Royal Institute of Technology, Stockholm, Sweden. Two semesters.
Sep. 2007 → Sep. 2008

Undergraduate, Energy and Environmental Engineering Studies, University of Leeds. Part of an integrated 4 year Master of Engineering Degree with exchanges studies in year 3.
Sep. 2005 → Jul. 2007

German Baccalaureate, Friedrich Hecker Gymnasium Radolfzell, Germany. Scientific profile with average mark 2,7.

Publikationer

Aerobic biological treatment of hydrothermal liquefaction process water of sewage sludge: Nitrification inhibition and removal of hazardous pollutants
Macêdo, W. V., Madsen, J. S., Schacksen, P., Sandeep, R., Nielsen, J. L., Biller, P. & Vergeynst, L., 1 jun. 2025, I: Water Research. 277, 123351.

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Continuous wet air oxidation of aqueous phase from hydrothermal liquefaction of sewage sludge
Silva Thomsen, L. B., Carregosa, J. D. C., Wisniewski, A., Anastasakis, K. & Biller, P., jun. 2024, I: Journal of Environmental Chemical Engineering. 12, 3, 112672.

Evaluating hydrothermal liquefaction hydrochar from sewage sludge as a phosphorus resource through struvite production
Neha, S., Vergeynst, L. & Biller, P., jun. 2024, I: Journal of Environmental Chemical Engineering. 12, 3, 113014.

Anaerobic digestion of wastewater from hydrothermal liquefaction of sewage sludge and combined wheat straw-manure
Macêdo, W. V., Harpøth, R. D., Poulsen, J. S., de Jonge, N., Fischer, C. H., Agneessens, L. M., Nielsen, J. L., Biller, P., Rickers, C. K. & Vergeynst, L., maj 2024, I: Bioresource Technology. 399, 130559.

Hydrochar fractionation and composition in batch and continuous hydrothermal liquefaction
Rivas-Arrieta, M. J., Torri, C., Rombolà, A. G. & Biller, P., apr. 2024, I: Biomass and Bioenergy. 183, 107166.

Sequential hydrothermal dechlorination and liquefaction of PVC
Tito, E., dos Passos, J. S., Rombolà, A. G., Torri, C., Bensaid, S., Pirone, R. & Biller, P., mar. 2024, I: Energy Conversion and Management. 304, 12 s., 118228.

A kinetic process model for sewage sludge hydrothermal liquefaction in Aspen Plus: Model validation with pilot-plant data and scale up
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Optimizing resource efficiency through hydrothermal carbonization and engineered wetland systems: A study on carbon sequestration and phosphorus recovery potential
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Synergies during hydrothermal liquefaction of cow manure and wheat straw
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Wet oxidation of aqueous phase from hydrothermal liquefaction of sewage sludge
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Distribution of nutrients and phosphorus recovery in hydrothermal liquefaction of waste streams
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Silva Thomsen, L. B., Carvalho, P. N., Dos Passos, J. S., Anastasakis, K., Bester, K. & Biller, P., sep. 2020, I: Water Research. 183, 116101.

Screening of common synthetic polymers for depolymerization by subcritical hydrothermal liquefaction
dos Passos, J. S., Glasius, M. & Biller, P., jul. 2020, I: Process Safety and Environmental Protection. 139, s. 371-379 9 s.

Revolutionising the way we manage waste: a Danish researcher is developing a pioneering new technology able to e.g. recover all phosphorus from manure and sludge.
Biller, P., feb. 2020, *Profile 2020*. Bruun, J. (red.). Aarhus: Aarhus Universitet, Institut for Ingeniørvidenskab , s. 100-103

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Johannsen, I. (Opfinder), Biller, P. (Opfinder) & Ottosen, L. D. M. (Opfinder), 2020, IPC nr. C02F 3/32, Patentnr. US2020/0223727, 16 jul. 2020, Prioritetsdato 29 jun. 2017, Prioritetsnr. PCT/DK2018/050168

Continuous Hydrothermal Liquefaction of Biomass in a Novel Pilot Plant with Heat Recovery and Hydraulic Oscillation
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Madsen, R. B., Anastasakis, K., Biller, P. & Glasius, M., 19 jul. 2018, I: Energy & Fuels. 32, 7, s. 7660-7669 10 s.

Detailed Investigation into the Asphaltene Fraction of Hydrothermal Liquefaction Derived Bio-Crude and Hydrotreated Bio-Crudes
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Madsen, R. B., Biller, P., Jensen, M. M., Becker, J., Iversen, B. B. & Glasius, M., 15 dec. 2016, I: Energy & Fuels. 30, 12, s. 10470-10483 14 s.

Comparing quantitative analysis of bio-crude and aqueous phase from hydrothermal liquefaction of biomass
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Principal component analysis of bio-crude and aqueous phase from hydrothermal liquefaction of thermally and chemically pretreated Miscanthus x giganteus
Madsen, R. B., Lappa, E., Biller, P., Jensen, M. M., Becker, J., Christensen, P. R., Iversen, B. B. & Glasius, M., 31 maj 2016.

Hydrogen production from the catalytic supercritical water gasification of process water generated from hydrothermal liquefaction of microalgae
Cherad, R., Onwudili, J. A., Biller, P., Williams, P. T. & Ross, A. B., 15 feb. 2016, I: Fuel. 166, February, s. 24-28 5 s.

Production of biofuels via hydrothermal conversion
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