Urban Wünsch

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Education

2018. PhD, Technical University of Denmark, Kongens Lyngby, Denmark. Title: Resolving the chemical structures responsible for the UV-visible spectroscopic properties of dissolved organic matter in aquatic environments.
2014. M.Sc., Biotechnology, University of Applied Sciences Bremerhaven, Germany.
2011. B.Sc., Biotechnology, University of Applied Sciences Bingen, Germany.

Employment history

Since 2020. Postdoc. Technical University of Denmark, National Institute for Aquatic Resources.
2018-2020. Postdoc. Chalmers University of Technology, Architecture and Civil Engineering.
2014-2017. PhD student. Technical University of Denmark, National Institute for Aquatic Resources.

Awarded grants and scholarships

Grants

2019. Åforsk Foundation (400k SEK, main applicant): Enhancing Biogeochemical Fingerprints of Natural Organic Matter with Data Fusion.
2019. Vinnova, Swedish Governmental Agency for Innovation Systems (474k SEK, co-applicant): An optical sensor for reducing biocide dependence in chemical manufacturing.

Scholarships

2019. Carl Triggers Stiftelse 2-year postdoctoral scholarship (main author, 552k SEK).
2018. National Science Foundation & National Oceanic and Atmospheric Administration. Stipend for participation in the Dissertations Symposium in Chemical Oceanography.
2018. International Humic Substances Society student travel award.
2017. Otto Mønsted Fond. Scholarship for conference participation.
2015. Kaj og Hermilla Ostenfeld's Fond. Scholarship for external research stay.

Teaching and supervision activities

Teaching

Since 2018. Parallel Factor Analysis for DOM fluorescence (biannual course, 25 PhD students & researchers).
2021-present. Lecturer in M.Sc. courses "Aquatic Field work" & "Chemical Oceanography".
2018-2019. Introduction to Chemistry for Civil Engineers (220 students, B.Eng.)
2018. Urban spaces and functions for Civil Engineers (250 students, B.Eng.).

PhD students

Since 2019. Xianyu Kong (PhD student), Alfred Wegener Institute (Germany), role: Thesis advisory committee, thesis reviewer & PhD defense member.
Since 2019. Anders Dalhoff Bruhn Jensen (PhD candidate), DTU Aqua (Denmark), role: Co-supervisor.
2018-2021. Nashita Moona (PhD student), Chalmers (Sweden), role: Co-supervisor.

Bachelor and Master students

2022. Emilie Tage Andresen (B.Sc. thesis), DTU Kemi, role: Co-supervisor
2022. Linea Gry Ebbesen (B.Eng. thesis), DTU Sustain, role: Co-supervisor
2022. Synne Spjelkavik (M.Sc. special course). DTU Aqua, role: Co-supervisor

2021. Laila Vinther & Cecilie Hjelm Hvas Hansen (M.Sc.), DTU Sustain (Denmark), role: Co-supervisor in voluntary special course.
2021. Evelyn Namuga Kasule (B.Sc.), DTU Sustain (Denmark), role: Co-supervisor.
2020-2022. Signe Melbye Andersen (MSc.), DTU Aqua (Denmark), role: Co-supervisor.

Publications

20 peer-reviewed publications (8 lead/corresponding, 12 co-authored). Citations: 586 (Google Scholar), 433 (Scopus). H-index: 11 (Google Scholar)

Conference activity / participation

Invited talks

2018. From fluorescence to chemical composition of organic matter: Multidetector analysis of DOM. International workshop: Predicting the interactivity of dissolved organic matter across terrestrial and aquatic ecosystems (Lund, Sweden)
2018. Resolving the chemical structures responsible for the UV-visible spectroscopic properties of dissolved organic matter in aquatic environments, Dissertations Symposium in Chemical Oceanography (Kona, USA)
2018. Supramolecular organic matter assembly in light of multidetector data analyses, 19th International Conference of International Humic Substances Society (Albena Resort, Bulgaria)
2018. Data fusion bridges the gaps between heterogeneous environmental chemistry datasets, Three-way Methods in Chemistry and Psychology (Angel Fire, NM, USA)
2016. OpenFluor – A new tool in your fluorescence toolbox, webinar in cooperation with Horiba Scientific

Session organizer

2018. Ocean Sciences Meeting. New Approaches to Opening DOM's "Black Box" Using Its Optical and Chemical Properties.