

Isaac Appelquist Løge

Postdoctoral Researcher

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Personal Details:

Born: 13th February 1995

Nationality: Dansk / Norsk

Language: Danish, Norwegian, English, German

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EDUCATION

Jan. 2020 – Apr.. 2023: *Ph. D. Chemical Engineering*

Technical University of Denmark (DTU), Denmark, 01/04/2023

Sep. 2017 – Jun. 2019: *M. Sc. Engineering in Nanomaterials and Nanophysics*

Aalborg University (AAU), Denmark

Sep. 2014 – Jun. 2017: *B. Sc. Nanoscience*

Aalborg University (AAU), Denmark

EMPLOYMENT

Apr. 2023 – Current: *Post-doc, Chemical Engineering*

Technical University of Denmark (DTU), Denmark

ACADEMIC AWARDS AND HONOURS

Mar. 2024: *Junior Fellowship at LINXS*

Nov. 2023: *“Young Researcher Award” at DTU*

Sep. 2023: *Finalist in Young Researcher Category, IChemE Global Awards*

Oct. 2021: *A.N. Neergaard fond: Modelsystem til undersøgelse af krystallisationsprocesser under CO₂ lagring (30kDKK)*

Sep. 2021: *Best poster award at YRD DHRTC*

May 2018: *Invited speaker at Universität Hamburg, Germany to the group of R. Wiesendanger*

Jan. 2017 – Jun. 2017: *Internship at CERN for the High Energy Beam Department*

MANAGEMENT EXPERIENCE, OBTAINED FUNDING

Jun. 2025 – Jun.. 2027: *The Origin of a Nucleus: Understanding Surface Activation Energy (1228 kDKK)*
- *Principal Investigator*

24 – 25. Okt. 2024: *Symposium “LINXS Young Researchers' Symposium II - Hard Matter”, organizer.*

Nov. 2023 – Dec. 2024: *Characterization of Phosphonate Scale Inhibitors Retention using a Mini-Coreflood (14 kDKK) - Principal Investigator*

Sep. 2023 – Sep. 2024: *ChalkGus (1000 kDKK) – Co-Principal Investigator*

Apr. 2023 – Dec. 2023: *The Resilience of Scale (338 kDKK) – Principal Investigator*

Oct. 2022 – Mar. 2023: *Surface Investigation of Scale Inhibitors (SISI) (198 kDKK) – Principal Investigator*

Jun. 2021 – Feb. 2022: *“Science on the Walls” – (~100 kDKK/ Internal project) curated, photographed and installed 20 large-format (1 × 1 m) research images now permanently exhibited at DTU KT.*

Feb. 2021 – Jul. 2021: *Novel tool for surface characterisation of pipelines (177 kDKK) – Principal Investigator*

PUBLICATIONS AND CONFERENCE CONTRIBUTIONS

Peer-review publications (accepted and submitted): 24

Citations: 167 ([Google Scholar](#))

Conference contributions: 42

Popular science articles: 13

Scopus page: [SCOPUS](#)

SCIENTIFIC FOCUS AREA

Surface science: *Deposition processes, molecular self-assembly, crystal growth, crystal resilience,*
Carbon Capture: *Pilot-work, amine scrubbing, on-site installation, commissioning, and decommissioning*
CO₂ impurities: *Holistic CCUS value chain, techno, socio and economic evaluation of impurities*
Characterization methods: *X-ray CT scanning, scanning electron microscopy, flow model systems*
Image analysis: *Surface characterization, texture parameters, metrology, segmentation and visualization*

TEACHING AND SUPERVISION

Developed course material for “Matlab for beginners”, published on StudyNow, hosted by IDA.

Supervised: 2 bachelor projects, 2 master project, 4 employed lab students

Teacher in Course “Chemical and Biochemical production” – 28012

Teaching assistant in Course “Technical Thermodynamics” – 28321

Teaching assistant in Course “Chemical and Biochemical process” - 28022