



ANDY SODE ANKER, PhD

Research Fellow

Department of Energy, Technical University of Denmark

Department of Chemistry, University of Oxford



+45 21 30 68 67



ansoan@dtu.dk / andy.anker@chem.ox.ac.uk



andysanker.github.io

CURRENT POSITIONS

- Fulford Junior Research Fellow, Somerville College, Oxford Oct 2024 –
- Visiting Postdoctoral Fellow, Department of Chemistry, University of Oxford, England Jan 2024 –
- Postdoctoral Fellow, Department of Energy, Danish Technical University, Denmark Dec 2023 –

PREVIOUS POSITIONS

- Independent Contractor, OpenAI Red Teaming Network 2024+2025
- Postdoc, Department of Chemistry, University of Copenhagen, Denmark 2023
- Visiting Researcher, Rutherford Appleton Laboratory, England 2021 – 2022
- PhD, Department of Chemistry, University of Copenhagen, Denmark 2018 – 2023

EDUCATION

University of Copenhagen, Denmark, supervision: Kirsten M. Ø. Jensen

- PhD in Materials chemistry 2018 – 2023
 - Dissertation: "Towards Automated Structure Analysis of Nanoparticles"
- MSc in Nanoscience 2018 – 2021
- BSc in Nanoscience 2015 – 2018

PUBLICATION METRICS (ORCID: [0000-0002-7403-6642](https://orcid.org/0000-0002-7403-6642)) (Google Scholar: bit.ly/AndyGoogleScholar)

- Authored 30+ peer-reviewed papers in chemistry and machine learning journals/conferences
- 1st author of 11 peer-reviewed papers &
- Corresponding author of 2 peer-reviewed papers

SELECTED PUBLICATIONS

- Autonomous nanoparticle synthesis by design*, A. S. Anker, et al., [arxiv](#) 2025
- Machine learning for analysis of experimental spectroscopy and scattering data in materials chemistry*, A. S. Anker, et al., Chemical Science 2023
- Using generative adversarial networks to match experimental and simulated inelastic neutron scattering data*, A. S. Anker, et al., Digital Discovery (**Front cover**) 2023
- DeepStruc: Towards structure solution from pair distribution function data using deep generative models*, A. S. Anker & E. T. S. Kjær, et al., Digital Discovery (**Front cover**) + AI4MAT NeurIPS 2022
- Extracting Structural Motifs from Pair Distribution Function Data of Nanostructures using Explainable Machine Learning*, A. S. Anker, et al., npj Computational Materials + AI4MAT NeurIPS (**MAX IV annual report highlight**) 2022
- Structural Changes during the Growth of Atomically Precise Metal Oxide Nanoclusters from Combined Pair Distribution Function and Small-Angle X-ray Scattering Analysis*, A. S. Anker, et al., Angewandte Chemie (**Back cover**) 2021

RECENT FUNDING

- | | | |
|-----------------|--|------|
| • 150 000 DKK | DTU Discovery (Commercialisation pre-startup grant) | 2025 |
| • 4 000 000 DKK | Postdoctoral Fellowship from Novo Nordisk Foundation | 2023 |

RECENT AWARDS AND HONORS

- | | |
|--|------|
| • Inflection award (The 30 top PhDs globally working on solutions to climate change) | 2025 |
| • Forbes 30 Under 30 Europe in the Science and Healthcare category | 2024 |
| • Danscatt PhD award (Danish scattering community) | 2024 |

PRESENTATIONS

1 invited keynote talk

- | | |
|--|------|
| • CAPeX Summer Academy: Self-driving laboratories, Kgs. Lyngby, Denmark | 2025 |
| • Conference: Machine Learning for X-Ray and Neutron-Based Experiments, <i>Garching, Germany</i> | 2024 |

2 invited talks – international

- | | |
|---|------|
| • Invited lightning talk: World Young Science Summit 2025, Wenzhou, China | 2025 |
| • Invited talk: WWYS – Machine learning for Science, Wenzhou, China | 2025 |
| • Conference: Chemical Compound Space Conference, <i>Heidelberg, Germany</i> | 2024 |
| • Conference: Machine Learning Modalities for Materials Science, <i>Ljubljana, Slovenia</i> | 2024 |

11 invited talks – regional talks in Denmark, Sweden, Finland, Austria, and United Kingdom 2022 – 2024

1 invited panel discussion

- | | |
|---|------|
| • Conference: Machine Learning Modalities for Materials Science, <i>Ljubljana, Slovenia</i> | 2024 |
|---|------|

12 contributed talks to summer schools, seminars, national- and international conferences

22 contributed posters for summer schools, national- and international conferences

BEAMTIMES 20+ scattering and spectroscopy experiments at international radiation facilities

MAX IV Programme Advisory Committee Member from 2026

REVIEWED ~20 papers in leading chemistry and machine learning journals/conferences

EDITOR Guest editor for *npj Comp. Mat.*

OUTREACH

- Two papers in Danish popular science journals - Aktuel Naturvidenskab & Ingeniøren
- Twitter takeover (@RealSci_Nano) and outreach video (https://youtu.be/PywCje9_YF4)
- Featured by MAX IV, Somerville College, University of Oxford, DTU

TEACHING

- Co-supervised 2 MSc and 4 BSc students at Department of Chemistry, University of Copenhagen
- Teaching assistant for 3 chemistry courses at Department of Chemistry, University of Copenhagen
- Student assistant at Nano-Science Center & Skoletjenesten, University of Copenhagen 2016 – 2018
- Teaching qualification course, Department of Science Education, University of Copenhagen, 3ECTS
- Guest lecture "Applied Mathematics for Chemists" 2023



github.com/AndySAnker

ansoan@dtu.dk / andy.anker@chem.ox.ac.uk



bit.ly/AndyGoogleScholar

andysanker.github.io