Philipp Mika Wolf

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EDUCATION

Uppsala University

Uppsala, Sweden

Ph.D. in Physics, Advisor: Prof. Dr. Daniel Primetzhofer

2020-Current

- Licentiate degree as a half time degree (2023)

Uppsala University

Uppsala, Sweden

M.Sc. in Physics 2018–2020

- Thesis: "In-situ characterization of ultra-thin nickel silicides using low-energy ion scattering"

Karlsruher Institute of Technology

Karlsruhe, Germany

B.Sc. in Physics

2014-2018

Thesis: "Air-Retaining Layers Produced by Electrospinning - Behavior Regarding Water and Oil"

Oscar-Paret-Schule

Freiberg a. N., Germany

Allgemeine Hochschulreife

2007-2014

WORK EXPERIENCE

Uppsala University

Uppsala, Sweden

Project Student/Ion Physics Group

December 2018–October 2019

The project consisted of establishing a process of manufacturing self-supporting tungsten foils, measuring the electronic energy loss of light ions in transmission and backscattering geometry on these foils as well as presenting the results of the project at the IBA 2019 conference.

Porsche AG

Stuttgart, Germany

Intern/Sportscar Assembly Division

March-July 2018

The internship consisted of assistance in the process management of the assembly line, the preparation of in-house training, the preparation of daily divisional meetings, assistance in the introduction of a new sports car in the assembly line and the preparation of weekly GT3 Cup coordination meetings.

MVZ Labor PD Dr. Volkmann und Kollegen

Karlsruhe, Germany September-October 2017

Student Assistant

 The duties and responsibilities consisted of labeling and preparing medical samples for further analysis.

Studienkreis Durlach and Bühl

Karlsruhe and Bühl, Germany September 2015–September 2017

Tutor

Tutoring high school students in mathematics and physics.

TEACHING

• Teaching Assistant at Uppsala University Teknisk termodynamik (1FA527) January 2022–April 2024

SKILLS

- Experimental methods: Time-of-Flight Low Energy Ion Scattering, Rutherford Backscattering Spectrometry, Elastic Recoil Detection Analysis, Auger Electron Spectroscopy, Low Energy Electron Diffraction, X-Ray Fluorescence
- Simulation and data evaluation methods: SIMNRA, POTKU, TRBS, KALYPSO
- Thin film deposition: Sputter deposition, e⁻-beam evaporation
- **Programming languages:** Python, C++, Matlab
- Other qualifications: Course in "Radiation Protection", Course in "Vacuum Technology", Course in "Basic Laboratory Safety"

LANGUAGES

• English: Professional proficiency

• German: Native

• Swedish: Basic

Awards

• Ferry-Porsche Award for outstanding accomplishments in mathematics and physics

2014

Grants and Funding

• Liljewalch travel scholarship (25 000 SEK $\approx 2~300~\text{EUR}$)

• ÅForsk travel scholarship (29 500 SEK $\approx 2~700~\text{EUR}$)

• Liljewalch travel scholarship (15 000 SEK $\approx 1~300~\text{EUR}$)

2024

2023

Extracurricular Activities

• Member of the board of the Tandem accelerator laboratory in Uppsala *Ph.D. student representative on the board*

November 2022–Current

• Member of the board of MUNIKA e.V.

Model United Nations Initiative Karlsruhe e.V.

December 2016–December 2017

SCIENTIFIC PUBLICATIONS

- Twelve contributions to international conferences as presenting author (five oral and seven poster presentations).
- Five publications in scientific journals:
- [1] P. M. Wolf, D. Neuß, T. T. Tran, E. Pitthan, M. Hans, J. M. Schneider, and D. Primetzhofer, "An in situ tof-leis characterization of the surface of ti-based thin films under oxygen exposure and at elevated temperatures", *Applied Surface Science*, vol. 638, p. 158 076, Jul. 20, 2023. DOI: 10.1016/j.apsusc.2023.158076.

- [2] P. M. Wolf, E. Pitthan, Z. Zhang, C. Lavoie, T. T. Tran, and D. Primetzhofer, "Direct transition from ultrathin orthorhombic dinickel silicides to epitaxial nickel disilicide revealed by in situ synthesis and analysis", *Small*, p. 2106093, Feb. 21, 2022. DOI: 10.1002/smll.202106093.
- [3] J. Shams-Latifi, E. Pitthan, P. M. Wolf, and D. Primetzhofer, "Experimental electronic stopping cross-section of tungsten bulk and sputter-deposited thin films for slow protons, deuterons and helium ions", *Nuclear Materials and Energy*, vol. 36, p. 101491, Aug. 22, 2023. DOI: 10.1016/j.nme.2023.101491.
- [4] M. V. Moro, P. M. Wolf, B. Bruckner, F. Munnik, R. Heller, P. Bauer, and D. Primetzhofer, "Experimental electronic stopping cross section of tungsten for light ions in a large energy interval", *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, vol. 498, pp. 1–8, Jul. 2021. DOI: 10.1016/j.nimb.2021.04.010.
- [5] B. Bruckner, P. M. Wolf, P. Bauer, and D. Primetzhofer, "Impact of the experimental approach on the observed electronic energy loss for light keV ions in thin self-supporting films", Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, vol. 489, pp. 82–87, Feb. 2021. DOI: 10.1016/j.nimb.2020.08.005.