

ANDERSON HOFF, Ph.D.

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CAREER PROFILE

Research Scientist with Ph.D. in Physics, 5 years' experience in laboratory research of solar cells and electronic circuits and 9 scientific articles published. Developed solutions for different research fields and instructed students with excellent communication.

Core competencies include laboratory experience in vacuum equipment, thin-film deposition, AFM, SEM, XRD, UV-vis, *I-V*, *EQE*, *C-V* profiling, cyclic voltammetry and impedance spectroscopy techniques. Proficient with programming languages as R and Fortran, and experienced in Linux, GnuPlot and Microsoft Office.

WORK EXPERIENCE

Postdoctoral Research Fellow

September 2018 – August 2019

Department of Physics, University of the State of Santa Catarina
Joinville, SC – Brazil.

- Designed and built electronic circuits and measurement routines, with high precision results.
- Developed computational routines in R and Fortran for time-series acquisition, numerical simulations and data analyses of chaotic systems.
- Implemented a new routine for chaotic time-series analysis (0-1 Test for Chaos), which reduced processing time by 70%.
- Co-supervised 2 master's students towards the progression of their research projects.
- Published 2 articles on scientific Physics journals.

Physics Instructor

March 2018 – August 2018

UniSociesc University
Jaraguá do Sul, SC – Brazil.

- Defined the course structure and learning outcomes of Physics. This has included the best learning experience for the students.
- Taught Physics I classes for 30 graduate students in Engineering Department.

Online Science Instructor

March 2018 – August 2018

Catolica de Santa Catarina University
Jaraguá do Sul, SC – Brazil.

- Provided online support for undergraduate students in Math, Calculus, Algebra, and Physics.
- Successfully dealt with conflicts and multi-tasks with effective communication, organization and attention to detail, resulting in an exceptional positive feedback rate.

ANDERSON HOFF, Ph.D.

Research Assistant (Ph.D. Candidate)

March 2014 – December 2017

Department of Physics, Federal University of Parana
Curitiba, PR – Brazil.

- Researched on design, development and characterization of thin-film solar cells, by employing a wide range of organic and inorganic materials, and successfully improved Selenium-based solar cells efficiency by 200% compared to the standard device.
- Planned and executed a variety of techniques for thin-film and device characterization, including impedance spectroscopy technique for the first time in the research group.
- Outstanding knowledge of thin-film deposition, laboratory equipment and procedures.
- Drafted standard operation procedures (SOPs) for research equipment in the laboratories, including thermal evaporation systems, glovebox facility and photovoltaic measure setup.
- Prepared materials for reports, publishing 4 articles in high-impact Physics journals.

Automotive Technician

1999 – 2012

Binho Auto Repair Center
Joinville, SC – Brazil.

- Performed vehicle maintenance in engines, transmission, brakes, suspension, etc.
- Delivered precise diagnostics and superior service using cutting edge equipment.
- Executed shop related duties as customer services and cost evaluation.

EDUCATION

Doctoral degree in Physics*

2014 - 2017

Federal University of Paraná, Curitiba, PR - Brazil

Thesis: *Development and characterization of Ga_xS_{10-x} thin-film based solar cells*

- Published 4 articles in scientific physics journals, 3 covering the master thesis results.

Master's degree in Physics*

2012 - 2014

University of the State of Santa Catarina, Joinville, SC – Brazil

Dissertation: *Bifurcation structures in 4-dimension dynamical systems*

- Published 2 articles in scientific physics journals.

Bachelor's in Physics*

2003 - 2007

University of the State of Santa Catarina, Joinville, SC – Brazil

* Canadian equivalent credential done.

Links

Personal site – <https://andersonhoff.github.io/>

LinkedIn – <https://www.linkedin.com/in/anderson-hoff-11582b23/>

Publications: Google Scholar – <https://scholar.google.com/citations?user=oV62NPgAAAAJ>
