

# ROSS WARREN

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## EDUCATION

<b>DPhil (PhD) in Physics</b> University of Oxford, UK	<i>2020</i>
<b>Masters (MRes) in Plastic Electronics - Distinction</b> Imperial College London, UK	<i>2016</i>
<b>MSci (Hons) in Physics - First Class</b> Imperial College London, UK	<i>2013</i>

## RESEARCH EXPERIENCE AND SKILLS

**Postdoctoral Research Associate in Physics** *March 2020 - present*  
Jenny Nelson Group, Imperial College London, UK

- Python: Kinetic Monte Carlo and tight-binding simulations using numpy, scipy and cython.
- Writing: journal articles of successful results obtained during my PhD.

**Visiting Researcher in Chemical Engineering** *Oct. 2019 - Jan 2020*  
Hitosugi Group, Tokyo Institute of Technology, Japan

**Graduate Researcher in Physics** *2016 - 2020*  
Advanced Functional Materials and Devices Lab, University of Oxford, UK

- Expertise in: organic semiconductors, doping, transistors, photovoltaics, electrical measurements (IV, mobility, conductivity), spectroscopic techniques (PDS, EPR), structural characterisation (GIWAXS).
- Python: modelling, data analysis, data visualisation and software for experimentation.
- Presentations: to research groups and at large international conferences.
- Teaching: tutor in analogue electronics. Senior demonstrator for the undergraduate electronics lab.
- Mentoring: undergraduate project developing software for performing lab experiments remotely.

**Undergraduate Research Assistant in Materials** *2011 - 2012*  
Ecole Polytechnique Fédérale de Lausanne, Switzerland

## EXPERIENCE IN INDUSTRY

**Marine Field Geophysicist** *2013 - 2015*  
Schlumberger, Canada and United States

- Data analysis: of large, noisy datasets. Signal processing techniques to improve signal-to-noise ratio.
- Bash: scripting to automate data analysis routines. My code got rolled out across several vessels.
- Team work: within a diverse geophysics group, presenting to and communicating with clients.

## AWARDS

International Exchange Scholarship	<i>2019</i>
Plastic Electronics Symposium Poster Award	<i>2018</i>
Hackathon Win - African Healthcare, Google Campus London	<i>2017</i>

## SELECTED PUBLICATIONS

**Warren R.** *et al.* Controlling energy levels and Fermi level en route to fully tailored energetics in organic semiconductors Nature Communications **10**, 5538 (2019)

**Warren R.** *et al.* Tuning the ambipolar behaviour of organic field effect transistors via band engineering. AIP Advances **9**, 035202 (2019)