

大久保研究室 特別セミナー

## The Search for a Sustainable Battery

Prof. Laura Lander

Department of Engineering, King's College London, United Kingdom

**講演形式** : Zoomによるオンライン形式

<https://list-waseda-jp.zoom.us/j/93549698758?pwd=ZG9NMXFWOWsyT2Q5V0NLbUNhR3BzZz09>

ID: 935 4969 8758, Passcode: 040599

**講演日時** : 2023年1月19日 18時00分－20時00分

**Abstract:** The decarbonisation of the transport and energy sectors is an imperative step in our efforts to drastically reduce greenhouse gas emissions. Here, energy storage devices namely lithium-ion batteries (LIBs) play a key role. They enable the integration of renewable energies in the power grid and facilitated the development of electric vehicles. However, while LIBs are indeed instrumental in decoupling our society from fossil fuels and move towards sustainable mobility and electricity, they come with their own significant environmental impacts incurred across the battery life cycle. To make the energy transition environmentally beneficial, scientists and battery manufacturers around the globe are intensively searching for a truly sustainable battery. In this seminar, we will discuss the origins of the environmental challenges of LIBs, how they can be identified using life cycle assessment, and future pathways towards the development of eco-friendly alternatives.

**Speaker Bio:** Dr Laura Lander is a Lecturer in the Department of Engineering at King's College London. With her research she aims to tackle the challenges of current energy storage systems and, ultimately, to develop high-performance sustainable battery devices. She applies a multi-scale research approach working at the interface between materials science and engineering including life cycle assessment and techno-economics. Laura obtained her PhD from College de France in Paris and later joined the University of Tokyo, where she was awarded a JSPS postdoctoral research fellowship. She then moved to Imperial College London as a postdoctoral researcher before joining King's College London.

問い合わせ先

電気・情報生命工学科 大久保将史

m-okubo@waseda.jp