



Prof. Georg Held

Professor of Surface Chemistry

University of Reading, UK
Diamond Light Source, UK

About the lecturer:

1993: PhD in physics, Technische Universität München (Germany) and Materials Science and Chemical Division, Lawrence Berkeley Laboratory (USA).

2001: Habilitation in physical chemistry, Universität Erlangen-Nürnberg (Germany).

Prof. Georg Held has authored over 100 journal and book articles and has been invited to give lectures in universities and research institutions, as well as at national and international conferences throughout Europe, USA and China.

Lecture topic:

Solid Surfaces and their Interaction with the Gas Phase

- **30 hours of classes – lecture with practical sessions**
- **Term: summer semester, academic year 2018/2019**
- **Taught entirely in English**
- **Lecture is primarily intended for students of PhD studies at Faculty of Physics and Applied Informatics, University of Lodz, however, other interested students are invited**

Lecture contents:

The lecture course will discuss the factors determining surface structure (geometric and electronic) and reactivity and explain differences in reactivity between surfaces that are utilised in applications, such as catalysts, fuel cells, chemical sensors, etc.

Topics are: Geometry and electronic structure of solid surfaces; Chemical and physical adsorption processes; Adsorption isotherms and models thereof; Kinetic models for surface reactions; General aspects and examples of surface reactions (e.g. catalysis, corrosion).