



HOKKAIDO UNIVERSITY

# AMBITIOUS LEADER'S PROGRAM

Fostering Future Leaders to Open New Frontiers in Materials Science

Ambitious 物質科学セミナー

## Single nanoelectrode photodissolution

**Prof. Christy F. Landes**

Department of Chemistry,  
Rice University



**平成 30 年 8 月 3 日 (金) 14:50~15:35**

**北海道大学 理学部 7号館 7-310**

The nanoscale stability of metal and metal oxide surfaces is crucial to the performance and degradation of catalysis supports and battery electrodes. Our lab is developing new single particle spectroelectrochemical methods to untangle the complex dynamics of dissolution of plasmonic metal nanoparticles. We are particularly interested in plasmon enhanced electrochemical processes. I will discuss our recent results in which we vary the electrolyte anion chemistry in order to preferentially protect or deprotect specific facets of gold nanorods. In particular, we demonstrate how photodissolution can be tuned to reshape nanorods into more complex shapes with new distributions of surface facets.

連絡先：北海道大学大学院理学研究院化学部門 村越 敬

(Tel: 011-706-2704, Mail: kei@sci.hokudai.ac.jp)