In SITU Transmission Electron Microscopy on Operating Electrochemical CELLS - DTU Orbit (09/09/2017)

In SITU Transmission Electron Microscopy on Operating Electrochemical CELLS

Solid oxide cells (SOC) have the potential of playing a significant role in the future efficient energy system scenario. In order to become widely commercially available, an improved performance and durability of the cells has to be achieved [1]. Conventional scanning and transmission SEM and TEM have been often used for ex-situ post mortem characterization of SOFCs and SOECs [2,3]. However, in order to get fundamental insight of the microstructural development of SOFC/SOEC during operation conditions in situ studies are necessary [4].

General information
State: Published
Organisations: Department of Energy Conversion and Storage, Imaging and Structural Analysis, Fundamental Electrochemistry, Department of Micro- and Nanotechnology, Molecular Windows, Electrofunctional materials, Center for Electron Nanoscopy, Nagoya University
Authors: Gualandris, F. (Intern), Simonsen, S. B. (Intern), Mogensen, M. B. (Intern), Mølhave, K. (Intern), Sanna, S. (Intern), Wagner, J. B. (Intern), Muto, S. (Ekstern), Higuchi, K. (Ekstern), Kuhn, L. T. (Intern)
Publication date: 2016
Conference: PRIME 2016/230th ECS Meeting, Honolulu, United States, 02/10/2016 - 02/10/2016
Main Research Area: Technical/natural sciences

Publication information
Journal: Electrochemical Society. Meeting Abstracts (Online)
Volume: MA2016-02
Article number: 2976
ISSN (Print): 2151-2043
Original language: English
Links:
http://ma.ecsdl.org/content/MA2016-02/39/2976.abstract?sid=72b5884c-9d36-454f-90c7-44f2396cece8
Publication: Research - peer-review CONFERENCE abstract in journal – Annual report year: 2016