

## **ID-12. In situ and environmental microscopy of material reactions and processes**

10 September, 16:45 - 18:45 / 11 September, 16:30 - 18:30

### **ID-12-P-1501**

#### **Gas environment study of Fe nanoparticles using in-situ aberration corrected E-(S)TEM**

Presenting author: **Lari L.**

*Authors: Lari L., Carpenter R., Lazarov V., Boyes E. D., Gai P. L.,*

### **ID-12-P-1529**

#### **In-situ observation of facet-dependent heterogeneous catalysis in an environmental TEM**

Presenting author: **Wang Y.**

*Authors: Wang Y.*

### **ID-12-P-1550**

#### **In situ TEM/EELS study of structural changes of Pt/GC electrocatalyst in CO gas**

Presenting author: **Yaguchi T.**

*Authors: Yaguchi T., Shimizu T., Kamino T.,*

### **ID-12-P-1569**

#### **Combining ESTEM and Kinetic Monte Carlo simulations to investigate sintering of Cu**

Presenting author: **Martin T. E.**

*Authors: Martin T. E., Lari L., Gai P. L., Boyes E. D.*

### **ID-12-P-1649**

#### **In-situ Studies of Ceria Supported Copper Nanocatalysts at the Atomic Level Using Wet- Environmental TEM**

Presenting author: **Yoshida K.**

*Authors: Yoshida K., Boyes E. D., van de Water L., Watson M., Gai P. L.*

### **ID-12-P-1733**

#### **ELECTRON RADIATION DAMAGE IS A VERY LONG DYNAMIC PROCESS**

Presenting author: **Massover W. H.**

*Authors: Massover W. H.*

### **ID-12-P-1864**

#### **Towards pure and compact FEBID nanostructures via e-beam assisted H<sub>2</sub>O purification at room temperature**

Presenting author: **Plank H.**

*Authors: Geier B., Gspan C., Fowlkes J. D., Rattenberger J., Fitzek H., Rack P. D., Plank H.*

### **ID-12-P-2438**

#### **In-situ TEM reduction of core-shell Ag@In<sub>2</sub>O<sub>3</sub> nanoparticles**

Presenting author: **Langlois C. T.**

*Authors: Langlois C. T., Cottancin E., Epicier T., Piccolo L., Pellarin M., Ramade J., Santos Aires F., Aouine M., Blanchard N.*

### **ID-12-P-2518**

#### **Faceted nanopores in magnesium: fabrication and electron-beam assisted healing**

Presenting author: **Wang J.**

*Authors: Wu S., Sheng H., Liu C., Cao F., Liu Y., Zheng H., Zhao D., Wang J.*

### **ID-12-P-2713**

#### **In situ characterization of Pd<sub>2</sub>Ga catalysts during particle formation and methanol synthesis**

Presenting author: **Fiordaliso E. M.**

*Authors: Fiordaliso E. M., Sharafutdinov I., Hansen T. W., Chorkendorff I., Wagner J. B., Damsgaard C. D.*

### **ID-12-P-2742**

#### **Charge density distribution in an atom probe needle measured using electron holography without mean inner potential effects.**

Presenting author: **Migunov V.**

*Authors: Migunov V., London A., Farle M., Dunin-Borkowski R. E.*

### **ID-12-P-2797**

#### **In situ Study of Oxidative Etching of Palladium Nanocrystals by Liquid Cell Electron Microscopy**

Presenting author: **Jiang Y.**

*Authors: Jiang Y., Zhu G., Lin F., Zhang H., Jin C., Yang D., Zhang Z.*

### **ID-12-P-2834**

#### **Nanoscale imaging of oxygen assisted reconstructions over Pt and Rh catalysts and their effects over local catalytic activity**

Presenting author: **Barroo C.**

*Authors: Barroo C., Lambeets S. V., Kruse N., Visart de Bocarmé T.*

### **ID-12-P-2836**

#### **Catalytic hydrogenation of CO<sub>2</sub> on rhodium surfaces: field emission techniques approach**

Presenting author: **Lambeets S. V.**

*Authors: Lambeets S. V., Barroo C., Kruse N., Visart de Bocarmé T.*

### **ID-12-P-2873**

#### **The response of nanofibrous mats to mechanical stress**

Presenting author: **Hadraba D.**

*Authors: Hadraba D., Lopot F., Suchy T., Moravek M., Bacakova M., Zaloudkova M., Ameloot M., Jelen K.*

### **ID-12-P-2957**

#### **In-situ observation of Fe precipitation from Fe<sub>2</sub>O<sub>3</sub> by SiO<sub>2</sub> and electron irradiation**

Presenting author: **Ishikawa N.**

*Authors: Ishikawa N., Kimura T., Takeguchi M., Kurokawa D., Inami T.*

### **ID-12-P-3004**

#### **Real time observations of collector droplet oscillations in scanning electron microscope**

Presenting author: **Vystavěl T.**

*Authors: Kolíbal M., Vystavěl T., Šíkola T.*

### **ID-12-P-3078**

#### **In situ TEM study on redox of Pd nanoparticles**

Presenting author: **Wu M.**

*Authors: Wu M., Shen C., Dam B., Zandbergen H.*

**ID-12-P-3105**

**From Dry to Wet: Dynamics of Water Transport Through Phase-Separated Polymer Films**

Presenting author: **Olsson E.**

*Authors: Jansson A., Boissier C., Marucci M., Nicholas M., Gustafsson S., Hermansson A. M., Olsson E.*

**ID-12-P-3158**

**Real-time Visualization of Phagocyte-like Migration and Coalescence of Si<sub>3</sub>N<sub>4</sub> Supported Pd Nanoparticles under O<sub>2</sub> Atmosphere**

Presenting author: **Lu P.**

*Authors: Lu P., Ai F., Xie D., Shan Z.*

**ID-12-P-3163**

**In-situ TEM study of cathode-electrolyte interface structure change in a LiMn<sub>2</sub>O<sub>4</sub> nanowire battery**

Presenting author: **Lee S.**

*Authors: Lee S., Oshima Y., Takayanagi K.*

**ID-12-P-3524**

**Novel functionalized MEMS devices for in-situ Electron Microscopy**

Presenting author: **Bormans B.**

*Authors: Bormans B., Xu Q., Zandbergen H. W.*

**ID-12-P-5768**

**Investigation of gold nanoparticle movement in liquid by scanning transmission electron microscopy**

Presenting author: **Pfaff M.**

*Authors: Pfaff M., de Jonge N.,*

**ID-12-P-5774**

**In-situ observation of graphene growth dynamics by environmental scanning electron microscopy**

Presenting author: **Wang Z. J.**

*Authors: Wang Z. J., Weinberg G., Schlögl R., Willinger M. G.*

**ID-12-P-5843**

**Nanostructures of bimetallic Pt-Sn fuel cell catalysts**

Presenting author: **Ward M. R.**

*Authors: Ward M. R., Sharman J., Ozkaya D., Martinez Bonastre A., Boyes E. D., Gai P. L.,*

**ID-12-P-5925**

**In-situ TEM observation of crystal precipitation in liposomes filled with sodium chloride aqueous solution**

Presenting author: **Ai H.**

*Authors: Ai H., Moriya N., Harumoto T., Ishiguro T.*

**ID-12-P-5942**

**In situ Transmission Electron Microscopy Studies of Cathode Materials for Lithium Ion Batteries**

Presenting author: **Schrader F.**

*Authors: Schrader F., Iskandar R., Noyong M., Mayer J., Simon U.*