

## **MS-9. Defects in materials and phase transformations**

8 September, 17:00 - 19:00 / 9 September, 16:30 - 18:30

### **MS-9-P-1622**

#### **Simultaneous strain and chemical mapping applied to a Ni-based superalloy**

Presenting author: **Mueller J.**

*Authors: Mueller J., Niekief F., Spiecker E.*

### **MS-9-P-1726**

#### **Transformations through pseudomorphosis of asbestos minerals in thermally processed asbestos-containing materials investigated through SEM/EDS and micro-Raman spectroscopy: implications for recycling of hazardous wastes.**

Presenting author: **Viani A.**

*Authors: Viani A., Gualtieri A., Mácová P., Pollastri S.*

### **MS-9-P-1785**

#### **Visualizing the room temperature plastic deformation of single crystal magnesium carried out through unit-cell-reconstruction**

Presenting author: **Liu B. Y.**

*Authors: Liu B. Y., Shan Z. W.*

### **MS-9-P-1789**

#### **Dislocation slip-twin interactions and nucleation of twins in a Mg-Zn alloy**

Presenting author: **Singh A.**

*Authors: Singh A., Somekawa H., Mukai T.*

### **MS-9-P-1801**

#### **EBSD Characterization of Stress-Induced $\omega$ Phase and Twinning in Metastable $\beta$ Ti-V Alloys**

Presenting author: **Sun J.**

*Authors: Wang X., Xing H., Sun J.*

### **MS-9-P-1922**

#### **Superhard WB<sub>3+x</sub> with ordered interstitial-boron solution**

Presenting author: **Du K.**

*Authors: Cheng X. Y., Zhang W., Chen X. Q., Niu H. Y., Liu P. T., Du K.*

### **MS-9-P-1925**

#### **Multiscale characterizations of martensitic transformation in Ti-Ni shape memory alloys**

Presenting author: **Nishida M.**

*Authors: Nishida M., Soejima Y., Mitsuhara M., Inamura T.*

### **MS-9-P-2103**

#### **Atomic-Resolution HAADF/ABF-STEM Observation of Radiation-Induced Defects in Ceria**

Presenting author: **Matsumura S.**

*Authors: Takaki S., Yasuda K., Yamamoto T., Matsumura S., Ishikawa N.*

#### **MS-9-P-2286**

##### **CIGS on steel substrate: Analysis of interlayer reactions using electron microscopy techniques**

Presenting author: **Donzel-Gargand O.**

*Authors: DONZEL-GARGAND O., THERSLEFF T., FOURDRINIER L., LEIFER K.*

#### **MS-9-P-2315**

##### **In-situ TEM study of the microstructural evolution in an aged Ti-50.3 at.% Ni shape memory alloy**

Presenting author: **López G. A.**

*Authors: López G. A., López-Ferreño I., Ruiz-Larrea I., Lopez-Echarri A., Breczewski T., San Juan J., Nó M. L.*

#### **MS-9-P-2417**

##### **Martensite Formation in Austenite Related to Deformation Twins in Adjacent Ferrite Grains in Duplex Stainless Steel**

Presenting author: **Hjelen J.**

*Authors: Kildahl P., Karlsen M., Aursand M., Hjelen J.*

#### **MS-9-P-2443**

##### **EBSD study of Cu-Al-Ni single crystal martensites and their orientation relationships**

Presenting author: **Egido N.**

*Authors: Egido N., San Juan J., López G. A., Nó M. L.*

#### **MS-9-P-2585**

##### **Characterisation of Neutron Irradiated Gallium Arsenide**

Presenting author: **Janse Van Vuuren A.**

*Authors: Janse van Vuuren A., Olivier E. J., Neethling J. H.*

#### **MS-9-P-2587**

##### **Phase transformations in the nitrocarburizing surface of carbon steels revisited by microstructure and property characterizations**

Presenting author: **Chen W. L.**

*Authors: Chen W. L., Wu C. L., Chen J. H., Ni S.*

#### **MS-9-P-2641**

##### **Correlating the atomic and electronic structures of CaTiO<sub>3</sub>:Pr long persistence phosphors with nanoscale spatially-resolved cathodoluminescence.**

Presenting author: **Bocher L.**

*Authors: Bocher L., Aguirre M. H., Otal E. H., Kociak M.*

#### **MS-9-P-2692**

##### **Microstructural and optical characterization of grain boundaries in GaN films grown on polycrystalline graphene layers**

Presenting author: **Yoo H.**

*Authors: Yoo H., Yoon S., Chung K., Yi G. C., Kim M.*

#### **MS-9-P-2706**

##### **Synthesis and characterisation of mackinawite (FeS) and influence of Cu-doping on phase and structure transformations**

Presenting author: **Zavašnik J.**

*Authors: Zavašnik J., Rečnik A.*

**MS-9-P-2750**

**HAADF-STEM, EELS and DFT study of (111) twins in MgAl<sub>2</sub>O<sub>4</sub> spinel**

Presenting author: **Rečnik A.**

*Authors: Rečnik A., Drev S., Dražić G., Komelj M., Daneu N.*

**MS-9-P-2809**

**Direct Detection of Spontaneous Polarization in Wurtzite GaAs Nanowires via Differential Phase Contrast Microscopy**

Presenting author: **Wild J.**

*Authors: Bauer B., Hubmann J., Wild J., Reiger E., Bougeard J., Zweck J.*

**MS-9-P-2983**

**Indium incorporation, interfacial properties, and strain relaxation at InGaN interlayers grown by PAMBE**

Presenting author: **Dimitrakopoulos G. P.**

*Authors: Bazioti C., Kehagias T., Papadomanolaki E., Iliopoulos E., Dimitrakopoulos G. P.*

**MS-9-P-3071**

**HRTEM/STEM characterization of interfaces and strain-related distortions in epitaxial perovskite heterostructures**

Presenting author: **Negrea R. F.**

*Authors: Negrea R. F., Ghica C., Teodorescu V. S., Maraloiu V. A., Nistor L. C.*

**MS-9-P-3108**

**Precise IDB-type identification by phase shift in HRTEM imaging**

Presenting author: **Koukoura T.**

*Authors: Koukoura T., Kioseoglou J., Kehagias T., Georgakilas A., Komninou P.*

**MS-9-P-3119**

**In-situ Transmission Electron Microscopy Study of Precipitation in AA3003 Aluminium Alloy**

Presenting author: **Poková M.**

*Authors: Poková M., Cieslar M.*

**MS-9-P-3126**

**Microstructure Processes During In-situ Tensile Test in UFG Copper**

Presenting author: **Petrenec M.**

*Authors: Král P., Petrenec M., Dvořák J., Svoboda M., Sklenička V.*

**MS-9-P-3146**

**Copper sulfide nanocrystals with tunable composition**

Presenting author: **Genovese A.**

*Authors: Genovese A., Casu A., Falqui A., Xie Y.*

**MS-9-P-3152**

**The Impact of Dislocations in InGaN/GaN quantum-well structure**

Presenting author: **Yoon S.**

*Authors: Yoon S., Yoo H., Kwon Y. K., Kim M.*

**MS-9-P-3181**

**Colloidal Au<sub>2</sub>Cd Alloy-CdSe Nanocrystal Heterostructures For Plasmonic Applications**

Presenting author: **Casu A.**

*Authors: Casu A., Genovese A., Guardia P., Falqui A.*

**MS-9-P-3265**

**TEM in-situ heating of Bi nanoparticles embedded in a Zn matrix**

Presenting author: **Peterlechner M.**

*Authors: Peterlechner M., Song T. E., Wilde G.*

**MS-9-P-3308**

**High resolution transmission electron microscopy study on mixed phase Ge nanoparticle on off axis 4H-SiC.**

Presenting author: **Chandran N.**

*Authors: Chandran N., Frangis N., Alassaad K., Ferro G., Polychroniadis E. K.*

**MS-9-P-3417**

**Scanned Electron Diffraction Studies of Self-assembled Monolayers**

Presenting author: **Aloni S.**

*Authors: Aloni S., Altoe V., Katan A., Martin F., Salmeron M.*

**MS-9-P-3530**

**Microscopy of Phase Transformations in Commercial Aluminium Alloys**

Presenting author: **Solange P. Y.**

*Authors: Solange P. Y., Benjamin H., Rosario A. M.*

**MS-9-P-5704**

**Comparison of Cs-corrected HRTEM/HRSTEM images of {001} platelets in diamond with two possible structural platelet models**

Presenting author: **Neethling J. H.**

*Authors: Neethling J. H., Olivier E. J., Naidoo S. R., O'Connell J. H., Kroon R. E.*

**MS-9-P-5705**

**Formation and growth mechanism of indium-decorated inversion domain boundaries in one-dimensional zinc oxide nanostructures**

Presenting author: **Schaan G.**

*Authors: Schaan G., Lotz M., Schmid H., Mader W.*

**MS-9-P-5715**

**HRTEM and EELS study of C+ implanted and annealed diamond**

Presenting author: **Olivier E. J.**

*Authors: Olivier E. J., Neethling J. H., Naidoo S. R., Nshingabigwi E. K., Janse van Vuuren A.*

**MS-9-P-5738**

**STEM observations of indium segregation in InAlN epitaxial layers**

Presenting author: **Borysiuk J.**

*Authors: Borysiuk J., Sobczak K., Kaminska A., Jezierska E., Yamamoto A., Schenk D., Suski T., Zytzkiewicz Z. R.*

**MS-9-P-5912**

**Atomic structure analysis of MgO Near-Sigma 5 (310)[001] Symmetrical Tilt Grain Boundary**

Presenting author: **Saito M.**

*Authors: Saito M., Inoue K., Wang Z., Kotani M., Ikuhara Y.,*

**MS-9-P-6026**

**Characterization of Planar Defects in Sn-Doped ZnO Nanowires**

Presenting author: **Cai R. F.**

*Authors: Cai R. F., Hsieh C. Y., Chang M. T., Lai M. W., Lo S. C., Chen F. R.*

**MS-9-P-6041**

**MICROSTRUCTURE OF DISSIMILAR WELDING: CARBON STEEL A36 AND AUSTENITIC STAINLESS STEEL E309L-E308L**

Presenting author: **Zamora Rangel L. Z.**

*Authors: Zamora Rangel L. z., Aguilar Torres A. T., Diaz Perez L. D., Sandoval Jimenez A. s., Muciño Gutierrez O. M.*