

## **IT-4. Scanning electron microscopy**

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

### **IT-4-P-1423**

#### **Development of high-efficiency DF-STEM detector**

Presenting author: **Kaneko T.**

*Authors: Kaneko T., Saitow A., Fujino T., Okunishi E., Sawada H.*

### **IT-4-P-1456**

#### **Photonic Crystal Structure of Butterfly Wing Scales Exhibiting Selective Wavelength Iridescence**

Presenting author: **Mika F.**

*Authors: Matějková-Plšková J., Mika F., Jiwajinda S., Dechkrong P., Svidenská S., Shiojiri M.*

### **IT-4-P-1467**

#### **Energy Low Loss Backscattered Electrons Imaging in Material Characterization and Analysis**

Presenting author: **Liu X.**

*Authors: Liu X.*

### **IT-4-P-1503**

#### **Using an EBSD Detector as a Microstructural Imaging Device**

Presenting author: **Wright S. I.**

*Authors: Wright S. I., Nowell M. M., de Kloe R., Camus P. P.*

### **IT-4-P-1551**

#### **A simple way to obtain BSE image in STEM**

Presenting author: **Tanaka S.**

*Authors: Tsuruta H., Tanaka S., Tanji T., Morita C.*

### **IT-4-P-1565**

#### **Imaging of nanoparticles in cells with backscattered electrons in a scanning electron microscope**

Presenting author: **Müller E.**

*Authors: Müller E., Seiter J., Blank H., Gehrke H., Marko D., Gerthsen D.*

### **IT-4-P-1607**

#### **Application for Low Energy STEM with the In-lens Cold FE-SEM**

Presenting author: **Sunaoshi T.**

*Authors: Sunaoshi T., Orai Y., Ito H., Okada S., Ogashiwa T., Konno M.*

### **IT-4-P-1688**

#### **High Sensitivity and Minimum Acquisition Time with the Annular EDX Pole Piece Silicon Drift Detector "Rococo2"**

Presenting author: **Liebel A.**

*Authors: Liebel A., Eckhardt R., Bornschlegl M., Bechteler A., Niculae A., Soltau H.*

### **IT-4-P-1795**

#### **SEM images using an energy/angle selective electron detector.**

Presenting author: **Otsuka T.**

*Authors: Otsuka T., Nakamura M., Yamashita K., Hara M., Timischl F., Honda K., Kudo M., Kitamura S.*

#### **IT-4-P-1825**

##### **The study of extreme low landing voltage scanning electron microscopy**

Presenting author: **Sakuda Y.**

*Authors: Sakuda Y., Asahina S., Kazumori H., Kawauchi K., Nokuo T., Charles F.*

#### **IT-4-P-1829**

##### **Determination of the second critical energy of primary electrons in relation to dielectric thickness and angle of incidence**

Presenting author: **Rau E. I.**

*Authors: Evstaf'eva E. N., Rau E. I., Tatarintsev A. A.*

#### **IT-4-P-1852**

##### **New possibilities of SEM for two-channel detection of energetically filtered secondary and backscattered electrons**

Presenting author: **Rau E. I.**

*Authors: Rau E. I., Kupreenko S. U., Tatarintsev A. A., Zaitsev S. V.*

#### **IT-4-P-1865**

##### **Low-Damage SEM Imaging of Organosilicate Glass Thin Films in Semiconductor Industry**

Presenting author: **Garitagoitia Cid A.**

*Authors: Garitagoitia Cid A., Muehle U., Rosenkranz R., Zschech E.,*

#### **IT-4-P-1912**

##### **Ionic Liquid Preparation for SEM Observation of Minute Crustacean**

Presenting author: **Sakaue M.**

*Authors: Shiono M., Sakaue M., Konomi M., Tomizawa J., Nakazawa E., Kawai K., Kuwabata S.*

#### **IT-4-P-1917**

##### **New Preparation Method using Ionic Liquid for Fast and Reliable SEM Observation of Biological Specimens**

Presenting author: **Sakaue M.**

*Authors: Sakaue M., Shiono M., Tomizawa J., Nakazawa E., Kawai K., Kuwabata S.*

#### **IT-4-P-2152**

##### **Purification of FEBID gold nanostructures using oxygen plasma**

Presenting author: **Shawrav M. M.**

*Authors: Shawrav M. M., Wanzenboeck H. D., Belić D., Gavagnin M., Wachter S., Bertagnolli E.*

#### **IT-4-P-2277**

##### **Physical background of multiple detection possibilities of the Hitachi SU8030 SEM**

Presenting author: **Gernert U.**

*Authors: Gernert U., Berger D.*

#### **IT-4-P-2405**

##### **Application of Multi-Tilt Specimen Stage for Advanced Electron Channeling Contrast Technique**

Presenting author: **Dluhoš J.**

*Authors: Dluhoš J., Sedláček L., Ižák T., Hrnčíř T., Jiruše J.*

#### **IT-4-P-2413**

##### **Hair Cuticular Characteristics: Potential of Animal Identification in Primates Order**

Presenting author: **Hing L. H.**

*Authors: HING L. H., TEO H. C., FOONG M. J., HUKIL S., SAHALAN A. Z., WAN NUR SYAWANI W., KASWANDI M. A., NORMALAWATI S.*

#### **IT-4-P-2468**

##### **Recent achievements of elemental analysis with low acceleration voltage FE-SEM**

Presenting author: **Kikuchi N.**

*Authors: Kikuchi N., Morita H., Ikarashi M., Kawauchi K., Nokuo T., Charles F.*

#### **IT-4-P-2553**

##### **Nanostructure Imaging with Topographic and Compositional Contrasts in a Cold-Field Emission Scanning Electron Microscope at Low Accelerating Voltage and with Energy-Filtration**

Presenting author: **Gauvin R.**

*Authors: Gauvin R., Brodusch N., Demers H., Woo P.*

#### **IT-4-P-2654**

##### **POROSITY DETERMINATION ON IRON ORE PELLETS USING OPTICAL MICROSCOPE AND ELECTRON MICROSCOPE**

Presenting author: **Vicente T. M.**

*Authors: Graça L. M., Lagoeiro L. E., Vicente T. M.*

#### **IT-4-P-2700**

##### **Volume reconstruction of biological samples by alternate physical and virtual slicing**

Presenting author: **Hovorka M.**

*Authors: Hovorka M., Boughorbel F., Potocek P., Cernohorsky P., van den Boogaard R., Hekking L., Korkmaz E., Langhorst M., Lich B.*

#### **IT-4-P-2707**

##### **Low-Voltage Imaging of Non-Conducting Samples**

Presenting author: **Havelka M.**

*Authors: Beránek J., Havelka M., Jiruše J.*

#### **IT-4-P-2766**

##### **A novel SEM triple in-lens detection system**

Presenting author: **Wall D. C.**

*Authors: Wall D. C., Vystavel T., Tuma L., Skalicky J., Sasam F., Wandrol P.*

#### **IT-4-P-2793**

##### **Monte Carlo simulations of electron trajectories for the study of betavoltaic battery configurations**

Presenting author: **Napchan E.**

*Authors: Napchan E.*

#### **IT-4-P-2865**

##### **Estimation of the resolution in 2D Wet-STEM and Wet-STEM tomography by Monte Carlo simulations**

Presenting author: **Xiao J.**

*Authors: Xiao J., Perret A., Foray G., Masenelli-Varlot K.*

#### **IT-4-P-3005**

##### **Microstructural characterization of metallic materials using advanced SEM techniques**

Presenting author: **Piños J.**

*Authors: Piños J., Konvalina I., Kasl J., Jandová D., Mikmeková Š.*

#### **IT-4-P-3064**

##### **An approach to study antigenotoxicity assay in plants using Confocal Laser Scanning Microscopy and Scanning Electron Microscopy.**

Presenting author: **Walia A.**

*Authors: Walia A., Sharma M., Kumar K., Bhardwaj R., Thukral A. K.*

#### **IT-4-P-3088**

##### **STEM in SEM imaging of gold nanoparticles in tissular ecotoxicity experiments**

Presenting author: **Jiménez De Haro M. C.**

*Authors: García-Negrete C. A., Jiménez de Haro M. C., Blasco J., Soto M., Fernández A.*

#### **IT-4-P-3090**

##### **Low-voltage STEM tomography: an alternative for soft polymers and hydrated samples**

Presenting author: **Masenelli-Varlot K.**

*Authors: Masenelli-Varlot K., Roiban L., Malchère A., Dhungana D. S., Xiao J., Jomaa M. H., Ferreira J., Cavaillé J. Y., Seveyrat L., Lebrun L.*

#### **IT-4-P-3106**

##### **SEM observation of several biological samples using a hydrophilic asymmetrical tetraammonium-type room temperature ionic liquid as a visualizing agent**

Presenting author: **Abe S.**

*Authors: ABE S., KAWAI K., YOSHIDA Y.*

#### **IT-4-P-3134**

##### **Topotactic transformations of Goethite to Hematite during low metamorphic conditions**

Presenting author: **Souza D. S.**

*Authors: Souza D. S., Lagoeiro L. E., Barbosa P. F.*

#### **IT-4-P-3145**

##### **Application of EBSD technique to analyze the microstructure and texture in Peridotites from Archipelago of São Pedro and São Paulo**

Presenting author: **Pinto S. O.**

*Authors: Pinto S. O., Lagoeiro L. E., Barbosa P. F., Simões L. A.*

#### **IT-4-P-3156**

##### **Microflow and Thermal Control System Design for Wet Cell in the Scanning Electron Microscope**

Presenting author: **Lee H. H.**

*Authors: Lee H. H., Lee C. Y., Chiang C. L., Tsai K. C., Lin W. T., Wang H. W., Fang J. M., Huang T. W., Liu S. Y., Tsai C. Y., Chen F. R.*

**IT-4-P-3166**

**Combined EDS and WDS analysis of thin specimens with high spatial and energy resolution in the scanning electron microscope**

Presenting author: **Mitsche S.**

*Authors: Mitsche S., Poelt P.*

**IT-4-P-3232**

**PERFORMANCE OF YAG:Ce SCINTILLATORS FOR LOW-ENERGY ELECTRON DETECTORS IN S(T)EM**

Presenting author: **Lalinsky O.**

*Authors: Lalinsky O., Bok J., Schauer P., Frank L.*

**IT-4-P-3358**

**Characterization of  $\beta$ -phase in Al-Mg-Si alloys by SLEEM and STLEEM techniques**

Presenting author: **Matsuda K.**

*Authors: Ligas A., Hida S., Matsuda K., Mikmeková Š.*

**IT-4-P-3491**

**Application of Ultra Low Voltage Secondary and Backscatter Imaging in FE-SEM for Imaging of Nanomaterials**

Presenting author: **Erdman N.**

*Authors: Erdman N., Robertson V., Shibata M.*

**IT-4-P-5734**

**Palynomorphology of *Dianthus petraeus* (Caryophyllaceae)**

Presenting author: **Mačukanović-Jocić M.**

*Authors: Mačukanović-Jocić M., Jarić S.*

**IT-4-P-5765**

**E-BEAM CROSSLINKING AND THERMAL DEGRADATION OF HYDROGEL UNDER ELECTRON MICROSCOPE**

Presenting author: **Wong Y. H.**

*Authors: Wong Y. H., Kuo C. H., Huang T. W., Liu S. Y., Hsieh H. Y., Chen F. R., Tseng F. G.*

**IT-4-P-5785**

**Time-Resolved Electron Beam Induced Current (TREBIC) Method for Spatiotemporal Analysis of GaN HFETs Structures.**

Presenting author: **Šatka A.**

*Authors: Šatka A., Priesol J., Donoval D., Uherek F.*

**IT-4-P-5814**

**Development of "Adaptive SEM" Technology for in situ Genome/Proteome Expression Analysis in Single Cell Level**

Presenting author: **Kim H.**

*Authors: Kim H., Terazono H., Takei H., Yasuda K.*

**IT-4-P-5889**

**Microflow and Thermal Control System Design for Wet Cell in the Scanning Electron Microscope**

Presenting author: **Lee H. H.**

*Authors: Lee H. H., Lee C. Y., Chiang C. L., Tsai K. C., Lin W. T., Wang H. W., Fang J. M., Huang T. W., Liu S. Y., Tsai C. Y., Chen F. R.*

**IT-4-P-5937**

**New scintillation low-energy BSE detector**

Presenting author: **Kološová J.**

*Authors: Kološová J., Beránek J., Jiruše J., Horodyský P.*

**IT-4-P-5966**

**Effect of hydroquinone treatment on OTO en bloc stained biological specimens.**

Presenting author: **Togo A.**

*Authors: Togo A., Higashi R., Ohta K., Nakamura K.*

**IT-4-P-6025**

**Two customized low-cost systems for STEM in SEM microscopy**

Presenting author: **Piccoli F.**

*Authors: Caciagli A., Tessarolo F., Piccoli F., Caola I., Nollo G., Caciagli P.*

**IT-4-P-6037**

**BASE – a web based, open source solution for microscope reservation and accounting**

Presenting author: **Ritter M.**

*Authors: Iwan H., Timmermann J., Ritter M.*

**IT-4-P-6044**

**Energy filtered imaging in a scanning electron microscope**

Presenting author: **Berger C.**

*Authors: Boese M., Berger C.*