

IT-2. High resolution TEM and STEM

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

IT-2-P-1522

Modification of an existing laboratory room to house a Cs corrected microscope.

Presenting author: **Papworth A. J.**

Authors: Papworth A. J., Nellist P. D.

IT-2-P-1525

Cs CORRECTED ATOMIC RESOLUTION TEM IMAGES OF THE HUMAN TOOTH ENAMEL CRYSTALS

Presenting author: **Reyes-Gasga J.**

Authors: REYES-GASGA J., TIZNADO-OROZCO G. E., BRÈS E. F.

IT-2-P-1600

Phase Contrast Transfer Function for Differential Phase Contrast in High Resolution Local Electric Field Measurements

Presenting author: **Majert S.**

Authors: Majert S., Kohl H.

IT-2-P-1633

Lifetime of the aberration-corrected optical state in HRTEM

Presenting author: **Barthel J.**

Authors: Barthel J., Thust A.

IT-2-P-1677

Preparation of thin film specimen by Cryo Ion Slicer for TEM cross-section (XTEM) observation

Presenting author: **Siddheswaran R.**

Authors: Siddheswaran R., Medlín R.

IT-2-P-1739

Development of the on-line DigitalMicrograph scripts for TEM imaging using the "Virtual TEM".

Presenting author: **Potapov P.**

Authors: Potapov P.

IT-2-P-1751

The atomic structure of epitaxially strained LaNiO₃-LaGaO₃ superlattices

Presenting author: **Qi H. Y.**

Authors: Qi H. Y., Kinyanjui M. K., Biskupek J., Benckiser E., Habermeier H. U., Keimer B., Kaiser U.

IT-2-P-1996

Structural and spectroscopic analyses of exfoliated 2-D transition metal dichalcogenides nanosheets with special emphasis on TEM

Presenting author: **Pokle A. S.**

Authors: Pokle A. S., Coelho J., Mendoza B., Nicolosi V.,

IT-2-P-2016

Surface Science of Metal Oxides by High-resolution TEM

Presenting author: **Yu R.**

Authors: Yu R., Zhan W., Lu S. R., Zhu J.

IT-2-P-2042

Contrast Investigation of Annular Bright-Field Imaging in Scanning Transmission Electron Microscopy of LiFePO₄

Presenting author: **Zhou D.**

Authors: Zhou D., Sigle W., Müller K., Rosenauer A., Zhu C., Kelsch M., Maier J., van Aken P. A.

IT-2-P-2046

HAADF STEM characterization of BST-MgO interface structure

Presenting author: **Khmelenin D. N.**

Authors: Kuskova A. N., Zhigalina O. M., Khmelenin D. N.

IT-2-P-2162

A channelling based approach for scattering cross sections of mixed columns in HAADF STEM images

Presenting author: **Van Den Bos K.**

Authors: van den Bos K., Van Aert S.

IT-2-P-2255

Probability of error for counting the number of atoms from high resolution HAADF STEM images

Presenting author: **De Backer A.**

Authors: De Backer A., De wael A., Van Aert S.

IT-2-P-2256

STEM Optical Sectioning for Imaging Screw Displacements in Dislocation Core Structures

Presenting author: **Yang H.**

Authors: Yang H., Lozano J. G., Pennycook T. J., Hirsch P. B., Nellist P. D.

IT-2-P-2265

Adding the Third Dimension to Atomic Resolution Spectrum Imaging

Presenting author: **Pennycook T. J.**

Authors: Pennycook T. J., Lewys J., Cabero M., Ribera-Calzada A., Leon C., Varela M., Santamaria J., Nellist P. D.

IT-2-P-2307

Observing depth dependent strain via optical sectioning in the STEM

Presenting author: **Lozano J. G.**

Authors: Lozano J. G., Yang H., Guerrero-Lebrero M. P., Yasuhara A., Okunishi E., Zhang S., Humphreys C. J., Galindo P. L., Hirsch P. B., Nellist P. D.

IT-2-P-2322

Comparison of intensity and absolute contrast of simulated and experimental high-resolution transmission electron microscopy images for different multislice simulation methods

Presenting author: **Krause F. F.**

Authors: Krause F. F., Müller K., Zillmann D., Jansen J., Schowalter M., Rosenauer A.

IT-2-P-2407

Studying ω to α Phase Transformation in Ti-15Mo alloy by Combination of Aberration-corrected Scanning Transmission Electron Microscopy and Ab-initio Calculations

Presenting author: **Kang S. J.**

Authors: Kang S. J., Kim S. H., Han H. N., Park M. H., Yang C. W., Lee H. C., Heo Y. U., Kim M.

IT-2-P-2425

Sensitive X-ray analysis system on an automated aberration correction FE-STEM

Presenting author: **Inada H.**

Authors: Inada H., Hirayama Y., Tamura K., Terauchi D., Namekawa R., Shichiji T., Sato T., Suzuki Y., Konno M., Nakamura K., Hashimoto T.

IT-2-P-2453

3D-structural elucidation of highly ordered mesoporous TiO₂ thin film by the method of electron crystallography

Presenting author: **Feng Z. D.**

Authors: Xu B. B., Feng Z. D., Zhou H., Wang C.

IT-2-P-2571

Optimization of imaging conditions for atomic resolution in Titan TEM to minimize radiation damage and to study low angle boundaries in graphene-like materials

Presenting author: **Lopatin S.**

Authors: Lopatin S., Chuvilin A.

IT-2-P-2594

Aberration correction through auto-iteration system utilizing diffractogram analysis by profile fitting technique

Presenting author: **Morishita S.**

Authors: Morishita S., Nakamichi T., Takano A., Satoh K., Hosokawa F., Suenaga K., Sawada H.,

IT-2-P-2830

Quantitative Low-dose HRTEM Imaging and Analysis of Radiation-sensitive Materials

Presenting author: **Huang C.**

Authors: Huang C., Borisenko K. B., Kim J. S., Berkels B., Kirkland A. I.

IT-2-P-2922

Real Space Characterization of the Finite Shape of the STEM Probe

Presenting author: **Grimley E. D.**

Authors: Grimley E. D., Sang X., LeBeau J. M.

IT-2-P-2932

Complementary Nature of Microscopy Techniques for Understanding Materials Phenomena

Presenting author: **Ghosh C.**

Authors: Ghosh C., Basu J., Divakar R., Mohandas E.

IT-2-P-2949

Development of highly stabilized water chiller for atomic resolution microscope

Presenting author: **Hamochi M.**

Authors: Hamochi M., Ishii T., Chisaka S., Okunishi E., Sawada H., Wakui S.

IT-2-P-3171

Quantitative study of defocus-dependent annular bright field images

Presenting author: **Lee S.**

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

IT-2-P-3187

Quantitative analysis of CeO₂ and Gd-doped CeO₂ nanocrystals by HRTEM focal series restoration

Presenting author: **Stroppa D. G.**

Authors: Stroppa D. G., Dalmaschio C. J., Thust A., Lentzen M., Barthel J., Houben L.

IT-2-P-3197

Temperature dependence of Z-contrast in InGaN

Presenting author: **Mehrtens T.**

Authors: Mehrstens T., Schowalter M., Tytko D., Choi P. P., Raabe D., Hoffmann L., Jönen H., Rossow U., Hangleiter A., Rosenauer A.

IT-2-P-3202

Sub-angstrom resolution realized with super high-resolution aberration corrected STEM at 300 kV

Presenting author: **Sawada H.**

Authors: Sawada H., Okunishi E., Shimura N., Satoh K., Hosokawa F., Kaneyama T.

IT-2-P-3462

The mini-TEM: highquality imaging and analysis of biological specimen

Presenting author: **Sintorn I.**

Authors: Sintorn I., Kylberg G., Nordström R., Upström M., Danielsson K., Fulin J., Åkesson J., Coufalova E., Drsticka M., Kolarik V., Stepan P.

IT-2-P-5735

Quantitative measurement of electron magnetic circular dichroism on polycrystalline iron film

Presenting author: **Rusz J.**

Authors: Muto S., Rusz J., Tatsumi K., Adam R., Arai S., Kocevski V., Oppeneer P. M., Bürgler D. E., Schneider C. M.

IT-2-P-5974

High quality FIB lamella preparation for wide area atomic resolution TEM investigations

Presenting author: **Straubinger R.**

Authors: Straubinger R., Beyrer A., Gries K. I., Schneider C., Rohnke M., Mogwitz B., Janek J., Volz K.

IT-2-P-6055

Visualizing and correcting dynamic specimen processes in TEM using a large-format Direct Detection Device

Presenting author: **Bammes B. E.**

Authors: Bammes B. E., Spilman M., Chen D. H., Jin L., Bilhorn R. B.