List of accepted poster contributions

- Processing and indexing of electron backscatter patterns using open source software.
  H.W. Ånes, J. Hjelen, A.T.J. van Helvoort and K. Marthinsen
- New olivine (MongOL SH11-2) reference material for in-situ microanalysis.
  V.G. Batanova, J.M. Thompson, L.V. Danyushevsky, M.V. Portnyagin, D. Garbe-Schönberg, Erik Hauri, J.-I. Kimura, Q. Chang, R. Senda, K. Goemann, C. Chauvel, S. Campillo, D. Ionov and A.V. Sobolev
- Ga FIB/TOF-SIMS analysis of lithium materials.
  S. Bessette, M. Golozar, P. Hovington, R. Gauvin and K. Zaghib
- EBSD-like orientation mapping in TEM - New possibilities.
  M. Bieda-Niemiec, K.Kudłacz, A. Jarzębska, S. Boczkal, P. Koprowski, M. Faryna and K. Sztwiertnia
- 3D-EBSD analysis of grain boundary structures in copper and aluminium deformed by channel die pressing.
  P. Bobrowski and A. Tarasek
- Versatility of X-ray microanalysis in examinations of forensic cases.
  Z. Brożek-Mucha
- Microstructure, crystal structure and martensitic transformation temperature of Cu, Co-doped Ni-Mn-Ga Heusler alloys.
  A. Brzoza, S. Sumara, J. Wojewoda-Budka, A. Wierzbicka-Miernik, T. Czeppe, E. Cesari and M.J. Szczerba
- Deterministic modelling of electron transport for electron probe microanalysis using the spherical harmonic method.
  J. Bünger, S. Richter and M. Torrilhon
- Local tetragonality of martensite investigated by EBSD.
  G. Cios, A. Winkelmann, G. Nolze, T. Tokarski and P. Bała
- Application of the adjoint method in gradient-based optimisation to the M1-model in electron beam microanalysis.
  T. Claus, J. Bünger, S. Richter and M. Torrilhon
- Austenite-ferrite transformation of AISI 430 ferritic stainless steel during its manufacturing.
  I. Collado Garcia, A. Núñez Galindo, A. Ruiz Flores, J.F. Almagro Bello and J. Botana
- Electron microscopy study of the effect of heat treatment on the superelasticity in Fe-based shape memory alloys.
  M. Czerny, T. Tokarski, W. Maziarz, G. Cios, N. Schell, Y.I. Chumlyakov and R.Chulist
- Spectrometer-induced deviation of relative line intensities in electron-excited X-ray spectra.
  J. Dellith, A. Scheffel, A. Dellith, R. Terborg and M. Abratis
- The technology behind a CMOS-based EBSD detector.
  K. Dicks, J. Goulden, P. Trimby and A. Bewick

- Characterisation of magmatic-hydrothermal tourmaline from the Land's End granite - Going from metres to micrometres.
  K. Drivenes, W. Brownscombe, R.B. Larsen, R. Seltmann, J. Spratt and B.E. Sørensen
- From experiments to reaction mechanisms: Application of microbeam techniques to understand albitisation reactions.
  G. Duan, J. Brugger, B. Etschmann, R. Ram, S. Micklethwaite and A. Frierdich
- EDS contribution to automotive failure analysis in process development.
  F. Ecclesia, R. Rolli and G. Giaccardi
- Very low energy peak shifts in EDS spectra.
  F. Eggert, P.P. Camus and F. Reinauer
- Identification of crystal structures and elemental composition of reactive air-brazed $Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-\Delta}$-Ag-14CuO joints by EBSD, EPMA and analytical TEM.
  L.C. Ehle, S. Herzog, S. Richter, A. Kaletsch, C. Broeckmann and J. Mayer
- In situ composition analysis by EDS at elevated temperatures in SEM and STEM.
  M. Falke and I. Nemeth
- An X-ray micro-fluorescence spectrometry analysis for determination of bromine content in alkaline rocks.
  C.F. Faranda, I. Di Carlo, B. Scaillet and J. Andujar
- Micro-ring coring as a tool for residual stress evaluation.
  M. Faryna and B. Kania
- Microstructure evolution of innovative thermal bridge composite (i-TBC) for power electronics during elaboration.
  H. Fekiri, V.A. Esin, V. Maurel, A. Köster, Y. Bienvenu and F. Gaslain
- Analytical STEM at 30 keV and less.
  R. Gauvin and N. Brodusch
- Analysis of light elements in carbon-coated samples using soft X-ray emission spectrometry: First results on lithium and boron.
  S. Goldmann and C. Wöhrl
- Characterisation of Li-ion batteries by combined LM, CT, EDS, WDS and SIMS using helium-ion microscopy (Carl Zeiss Orion).
  U. Golla-Schindler, F. Khanom, D. Zeibig, A. Casares, P. Gnauck, T. Bernthaler and G. Schneider
- In situ SEM study of lithium metal batteries.
  M. Golozar, H. Demers, R. Gauvin and K. Zaghib
- Matlab-based algorithm associated with the CAMECA SX100 electron microprobe for fast and precise (re-)exploration and re-measurement of documented samples.
  J. Haifler and R. Škoda
- Characterisation of super duplex stainless steel by optimisation of EBSD parameters.
  M. Haukali, I. Westermann, M. Karlsen, Y. Yu, R. de Kloe and J. Hjelen
- Check of the performance of EDS systems attached to the SEM with the test material EDS-TM001/002 and evaluation software EDS spectrometer test - Application, experiences and updates.
  V.-D. Hodoroaba and M. Procop

- High-quality experimental data in electron microscopy and microbeam analysis – Possible joint exercises.
  V.-D. Hodoroaba
- Measurement of elemental composition of FeNi and SiGe alloy thin films by EPMA and μ-XRF.
  V.-D. Hodoroaba, R. Terborg, S. Boehm and K.J. Kim
- Ferric ion determination by EPMA: Applications in Earth Sciences.
  H.E. Höfer and G.P. Brey
- Molybdenum homogenisation in γ-U(Mo) alloy atomized particles.
  X. Iltis, V. Klosek, R. Belin, K. Hanifi, E. Suard, J. Drnec and H. Palancher
- Using ECCI and EBSD to study the microstructure of hardmetals.
  B.M. Jablon, K. Mingard, G. Naresh-Kumar and C. Trager-Cowan
- SEM/EBSD studies on recrystallisation processes in biodegradable low-alloyed zinc after cold plastic deformation
  A. Jarzębska, M. Bieda-Niemiec, M. Strąg, D. Wojtas, R. Chulist, M. Faryna, W. Pachla and K. Sztwiertnia
- Towards magnetic micro-actuation: Preparation of Ni-Mn-Ga micropillars using Xe plasma source FIB-SEM.
  L. Klimša, L. Straka, D. Musiienko, J. Balogová and J. Kopeček
- Bright combination of compositional and topographical information in a single image.
  J. Kolář, J. Dluhoš and R. Váňa
- Analysis of the polycrystalline microstructure of Al-3at%Mg-0.2at%Sc alloy by 3D-EBSD.
  J. Kopeček, L. Klimša, J. Staněk, F. Seitl, V. Beneš, D. Westhoff, L. Petrich, C.E. Krill III and V. Schmidt
- Relation between growth of selected phases in Ni/Al/Ni system during diffusion soldering process.
  I. Kwiecień, P. Bobrowski, A. Wierzbicka-Miernik and J. Wojewoda-Budka
- Strain analysis and twin domains in Phalaborwa baddeleyite characterised by EBSD, RTKD and TEM.
  M.E. Lee, W.E. Goosen and J.H. O'Connell
- Imaging and analytical improvements with a recent FEG microprobe.
  J.L. Longuet
- Microstructural characterisation of joints between Ti6Al4V elements obtained with the use of Ti/Al multilayers through resistive heating.
  Ł. Maj, J. Morgiel, K. Mars and G. Cios
- Characterisation of precipitates in a 12 % Cr tempered martensite ferritic steel.
  G. Marx, W.E. Goosen and J.E. Westraadt
- Characterisation of carbide-reinforced composite surface layers on a ductile cast iron.
  K. Matus and D. Janicki
- New trends in EPMA - Overview.
  S. Matveev
- Silicon drift detector incorporated into a wavelength-dispersive X-ray spectrometer (SD-WDS) – Allowing bremsstrahlung determination by theoretical calculation.
  K. Moran and R. Wuhrer

- Characterising nanowire arrays by computer vison based on SEM images.
  A.B. Mosberg, D. Ren, S. Myklebost, H. Weman, B.-O. Fimland and A. van Helvoort
- Analysis of oxide scales on oxidised AISI 441 ferritic stainless steel catalyst support by scanning electron microscopy.
  P. Navarro Vicente, A. Nuñez Galindo, J.F. Almagro Bello and J.A. Odriozola
- Measurements of the quantitative analytical depth resolution at evaporated metal layers with the FEG-EPMA JEOL JXA-8530F.
  J. Nissen and D. Berger
- Evolution of crystalline orientations in the production of ferritic stainless steel.
  A. Núñez Galindo, I. Collado, D.L. Sales and J.F. Almagro Bello
- Natural titanite from the Urals: Local structural and chemical features by EPMA, PL and Raman spectroscopy data.
  E.A. Pankrushina, S.L. Votyakov, D.A. Zamyatin and Yu.V. Shchapova
- Using EBSD to verify digital image correlation results from an in situ tensile test.
  C.O. Paulsen, E. Fagerholt, T. Børvik and I. Westermann
- Two-dimensional variable line space gratings: Production and application.
  J. Probst, H. Löchel, C. Braig and A. Erko
- New strategies in EPMA to analyse fine structures using Monte Carlo based reconstruction techniques.
  S. Richter, P.T. Pinard and M. Torrilhon
- Comparison of 3D-FIB tomography volume reconstruction with various in-column detectors on an epoxy-infiltrated nanoporous metal test sample.
  M. Ritter
- Analysis of elemental composition and porosity of mesoporous iridium-titanium mixed oxide thin films for energy applications by SEM/EDS.
  R. Sachse, A. Hertwig, R. Kraehnert and V.-D. Hodoroaba
- XRD and EPMA characterisation of serpentinite from Tuscany (Italy).
  A.P. Santo, E. Pecchioni and C.A. Garzonio
- EBSD investigations applied to characterise the crystallographic relationships at the interfaces of biocomposite mollusc shells.
  M. Strąg, M. Bieda-Niemiec, K. Berent, K. Nalepka, A. Jarzębska, A.G. Checa and K. Sztwiertnia
- Investigation of the structure of multiaxial forged steel by electron backscattered diffraction.
  P.J. Szabó
- Comparison of the quantification of borides with WDS and EDS.
  R. Terborg and S. Richter
- Determination of the Kβ/Kα line ratios of pure elements.
  R. Terborg, F. Reinhardt, F. Nitsche and T. Wolff
- Quantification of energy-dispersive X-ray spectra acquired with large solid angle detectors.
  R. Terborg and M. Falke
- A combined mapping and time-dependent intensity correction approach to improve EPMA analysis of beam-sensitive materials.
  A. von der Handt and J.J. Donovan

- Calibration device for accurate current measurement on a CAMECA SX100 EPMA.
  B. Vos and A. Leenaers
- TEM characterisation and Raman spectroscopy of vitrinite.
  S. Vranjes-Wessely, D. Misch, D. Kiener, G. Rantitsch, D. Gross and R.F. Sachsenhofer
- Application of automated mineralogy for evaluation of metyal recovery potential of incineration bottom ash from municipal solid waste.
  J. Výravský and M. Šyc
- Automated orientation imaging and phase mapping in the TEM: Detection limits for reliable martensite identification in steels.
  J. Werner and T.E. Weirich
- TEM studies on Fe-Co-B soft magnetic melt spun ribbons.
  A. Wojcik, W. Maziarz, M. Kowalczyk, J. Ferenc, P. Zackiewicz and A. Kolano-Burian
- Combined XRD and TEM studies of the antibacterial coatings deposited on titanium.
  D. Wojtas, K. Wierzbanowski, M. Bieda-Niemiec, R. Chulist, A. Jarzębska, Ł. Maj, A. Brzoza, K. Sztwiertnia, H. Çimenoğlu and F. Muhaffel
- Electron probe microanalysis of non-safety tested and safety tested irradiated TRISO AGR-2 nuclear fuel.
  K.E. Wright and I. Van Rooyen
- In-situ EBSD investigation of thermal stability of a steel nanocrystallised by surface mechanical attrition treatment.
  Y. Wu, Z. Sun, F. Brisset, T. Baudin, A.L. Helbert and D. Retrain
- Probing the native structure and chemistry of Li-metal batteries by cryo-electron microscopy.
  M.J. Zachman, Z. Tu, M. Chi, L.A. Archer and L.F. Kourkoutis
- Internal texture, metamict state and deformations of zircon by data from microbeam methods: EPMA, Raman, EBSD.
  D.A. Zamyatin, D.V. Semenova, V.G. Vladimirov and S.L. Votyakov

Young Scientists' Session

- Local tetragonality of martensite investigated by EBSD.
  Grzegorz Cios, A. Winkelmann, G. Nolze, T. Tokarski and P. Bała

- Austenite-ferrite transformation of AISI 430 ferritic stainless steel during its manufacturing.
  Irene Collado Garcia, A. Núñez Galindo, A. Ruiz Flores, J.F. Almagro Bello and J. Botana

- Identification of crystal structures and elemental composition of reactive air-brazed $Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-\Delta}$-Ag-14CuO joints by EBSD, EPMA and analytical TEM.
  Lisa C. Ehle, S. Herzog, S. Richter, A. Kaletsch, C. Broeckmann and J. Mayer

- In situ SEM study of lithium metal batteries.
  Maryam Golozar, H. Demers, R. Gauvin and K. Zaghib

- Analysis of oxide scales on oxidised AISI 441 ferritic stainless steel catalyst support by scanning electron microscopy.
  Pablo Navarro Vicente, A. Nuñez Galindo, J.F. Almagro Bello and J.A. Odriozola

- Automated orientation imaging and phase mapping in the TEM: Detection limits for reliable martensite identification in steels.
  Jonas Werner and T.E. Weirich

MAS-USA Student Award Winner presentation

- Probing the native structure and chemistry of Li-metal batteries by cryo-electron microscopy.
  M.J. Zachman, Z. Tu, M. Chi, L.A. Archer and L.F. Kourkoutis

AMAS Student Award Winner presentation

- From experiments to reaction mechanisms: Application of microbeam techniques to understand albitisation reactions.
  G. Duan, J. Brugger, B. Etschmann, R. Ram, S. Micklethwaite and A. Frierdich