



List of accepted poster contributions

- TEM/EDS analysis of hydrothermally prepared boehmite with Ti-rich planar defect.
A. Abram, N. Daneu and G. Dražić
- Mineral and chemical characteristics of the Jesenice meteorite.
B. Ambrožič, M. Vrabc, Z. Samardžija and S. Šturm
- A method of STEM quantitative X-ray microanalysis for application to silicon oxycarbide thin films determination.
A. Armigliato, S. Frabboni, G.C. Gazzadi, A. Parisini and R. Rosa
- EPMA, SIMS and FTIR investigations on sodalities and haüynes from Somma-Vesuvius volcano (Southern Italy).
G. Balassone, F. Bellatreccia, L.P. Ottolini, A. Mormone, C. Petti, G. Della Ventura and M.R. Ghiara
- Advancing materials characterisation in the FIB-SEM with transmission Kikuchi diffraction.
F. Bauer, S. Sitzman, C. Lang, C. Hartfield, K. Dicks and J. Goulden
- Analytical characterisation of nuclear accident corium materials.
E. Brackx, P. Allegri, J. Faure, E. Excoffier, O. Dugne, R. Domenger, A. Chocard, M. Pons, V. Testud, A. Quaini, C. Gueneau, S. Gossé, T. Alpettaz and C. Journeau
- Application of electron probe microanalysis to the characterisation of irradiated metallic nuclear fuel.
S. Brémier, P. Pöml, L. Capriotti, J. Himbert, V.V. Rondinella, K. Inagaki, H. Ohta and T. Ogata
- Mitigating thermal beam damage with metallic coatings in low voltage FEG-EPMA of geological materials.
B. Buse, S.L. Kearns and J. Wade
- New methods to estimate the internal pressure of xenon in fission bubbles using SEM EPMA-SIMS and EBSD in irradiated fuels.
C. Cagna, I. Zacharie-Aubrun, P. Bienvenu, L. Barralier and B. Michel
- The role of sample preparation on the accuracy of EBSD pattern indexation studied on rutile/hematite intergrowths.
M. Češarek, N. Stanković, N. Daneu, A. Rečnik and M. Čeh
- Determination of oxygen vacancies and Ce^{3+} in Tb-CeO₂ mixed oxides using EELS.
A. M. D'Angelo, A.C.Y. Liu and A.L. Chaffee
- High resolution imaging and fast X-ray microanalysis at the nanoscale with a cold field emission scanning electron microscope and an annular silicon drift detector.
H. Demers, N. Brodusch and R. Gauvin
- EDS quantification of lighter elements using a SEM with a low accelerating voltage.
C. Donik, I. Paulin and M. Godec
- Combined EDS/WDS X-ray spectrometry in SEM as a step towards standardless WDS analysis.
F. Eggert, M. Schleifer and P.P. Camus

- Quantitative EDS of electron transparent samples.
M. Falke, I. Nemeth, A. Kaeppel and R. Terborg
- The role of intergranular chromium carbides on stress corrosion cracking of nickel base alloys in PWR primary water.
F.O.M. Gaslain, H.T. Le, C. Duhamel, C. Guerre and P. Laghoutaris
- Electron probe microanalysis of Ni silicides at low voltage – difficulties and possibilities.
E. Heikinheimo, P.T. Pinard, S. Richter, X. Llovet and S. Louhenkilpi
- Crystal growth under high electric field: analysis of the nucleation process.
P. Hicher, R. Haumont, R. Saint-Martin, F. Brisset, T. Baudin, X. Mininger, P. Berthet and A. Revcolevschi
- The influence of surface properties on the adhesion of bacteria to uncoated and titanium oxide coated stainless steel with different surface finishes.
M. Hočevar and M. Jenko
- Determination of the collection solid angle for EDS detectors.
V.-D. Hodoroaba, R. Terborg and M. Procop
- What about ionic liquids as a "hot" reference material candidate to check your EDS below 1 keV?
M. Holzweber, S. Benemann, V.-D. Hodoroaba and W.E.S. Unger
- Accurate EPMA quantification of the first series transition metals using L_I-lines.
C. Hombourger, M. Outrequin and M. Moret
- Electron microscopy analysis of hard-soft magnetic nanocomposites.
P. Jenuš, M. Topole, P. McGuinness, K. Žužek Rožman, M. Stingaciu, M. Christensen and S. Kobe
- Fission product analysis in an irradiated simulated fuel analysed by EPMA.
Y.H. Jung, B.O. Yoo, H.M. Kim, S.B. Ahn and Y.B. Jun
- Active photovoltaic silicides.
K. Jurek, M. Jarošová, L. Palatinus, A. Fejfar, A. Vetuschka, J. Kopeček and M. Klementová
- Electron channelling contrast reconstruction with electron backscattered diffraction.
S. Kaboli, H. Demers, N. Brodusch and R. Gauvin
- Metal distribution in Sn-beta zeotype.
A. Katerinopoulou, S. Tolborg, E. Taarning and M. Holm
- Recrystallisation investigation by means of EBSD in-situ annealing of titanium samples deformed in KoBo complex loading process.
J. Kawałko, P. Bobrowski, P. Koprowski, M. Bieda and K. Sztwiertnia
- Microstructure of Ni Mn Ga: toward the *a-b* laminate.
L. Klimša, J. Kopeček, L. Fekete, V. Kopecký, J. Remiášová and O. Heczko
- Stress induced martensite in Co₃₈Ni₃₃Al₂₉ alloy.
J. Kopeček, M. Jarošová, K. Jurek, L. Fekete, V. Kopecký, L. Klimša, J. Remiášová and O. Heczko
- Investigation of martensitic Co-Ni-Al ferromagnetic shape memory alloys by SEM, EDS and Kossel diffraction.
K. Krátká, S. Däbritz, L.P. Potapov, J. Kopeček and E. Langer

- Characterisation of microstructure and properties of aged Mg-3Zn-3Ca wt% alloy for biomedical applications.
K. Kubok and L. Litynska-Dobrzynska
- PENEPMA-2014: a Monte Carlo programme for the simulation of X-ray spectra in EPMA.
X. Llovet and F. Salvat
- How to distinguish quasi-crystals from other phases in Al-based cast alloys?
B. Markoli, I. Naglič, Z. Samardžija, T. Bončina and F. Zupanič
- EDS elemental selectivity with respect to nanoparticle analysis.
J. Mielke, E. Ortel, S. Rades, T. Salge and V.-D. Hodoroaba
- SEM/EDS characterisation of metal-bearing particles in the attic dust from Pb mining and smelting area (Žerjav, Slovenia).
M. Miler and M. Gosar
- Micro- and nanoscale investigations on gas shales from the Dniepr Donets Basin (Ukraine): implications for shale gas potential.
D. Misch, D. Gross, F. Mendez Martin, P Onuk and R.F. Sachsenhofer
- Fractal nature structure reconstruction analysis method and application in a priori designed microstructure properties prognosis function.
V. Mitic, Lj. Kocic, V. Paunovic, F. Bastic and M. Miljkovic
- Voronoi cells and fractal structure reconstruction analysis method and application in microstructure properties prognosis function.
V. Mitic, Lj. Kocic, V. Paunovic, F. Bastic, D. Rancic and I. Antolovic
- High spatial and energy resolution X-ray analysis of thin specimens by scanning electron microscopy.
S. Mitsche, A. Melischnig, G. Haberfehlner, M. Dienstleder and P. Pölt
- Development of an automatic phase analysis system by EPMA.
N. Mori, N. Kato, S. Honda, S. Sakamoto, R. Kamiyama and M. Takakura
- Contribution to the physical modelling of the actinide characterisation by electron probe microanalysis.
A. Moy
- Standardless quantification of heavy metals by electron probe microanalysis.
A. Moy, C. Merlet and O. Dugne
- Composition of the forming cuticle in isopod larvae as revealed by EDS analyses combined with Raman spectroscopy.
P. Mrak, N. Žnidaršič, K. Žagar, M. Čeh, A. Gajovič and J. Štrus
- Characterisation of Aeolian dust and sediment with SEM-EDS automated particle analysis.
H. Mutou, A. Shimada, M. Morita, J. Larnould and J. Heindl
- EPMA measurement of concentration profiles in diffusion couples of Ni- and Co-based alloys.
J. Nissen, D. Berger, A. Epishin, T. Link and J. Midtlyng
- Measurements of the quantitative lateral analytical resolution at sputtered gold layers with the FEG microprobe JEOL JXA-8530F.
J. Nissen and D. Berger
- Effects of cold rolling deformation on microstructure in 18/8 grade stainless steel.
A. Núñez Galindo and J.F. Almagro Bello

- Imaging of shape-engineered TiO₂ nanoparticles by high-resolution SEM/EDS.
E. Ortel, L. Pellutiè, V. Maurino, J. Mielke, I. Häusler, W. Österle and V. D. Hodoroaba
- Determination of porosity of highly porous thin films by combined SEM-EDS analysis.
E. Ortel, R. Kraehnert, F. Galbert and V.-D. Hodoroaba
- SEM and AES characterisation of aluminium foams produced by P/M route using foaming agent based on H₂ and CO₂ releasing gas.
I. Paulin, Č. Donik and M. Godec
- Combined quantification of Cr-Ni steel using EDS and WDS.
P.T. Pinar, R. Terborg, T. Salge and S. Richter
- Inhomogeneities in the backscatter electron contrast of the ferromagnetic shape memory alloy Co₃₈Ni₃₃Al₂₉.
L.P. Potapov, S. Däbritz, K. Krátká, J. Kopeček and E. Langer
- *In situ* corrosion of Co-based high temperature alloys in the ESEM.
A. Reichmann, M. Weiser, S. Virtanen and P. Pölt
- Orientation imaging and EBSD analysis of the crack zone of fatigued lead-zirconate-titanate.
A. Reichmann, S. Pojprapai, M. Deluca, P. Pölt and K. Reichmann
- Microstructural analysis of functional ceramics by orientation contrast imaging.
K. Reichmann, A. Reichmann and P. Pölt
- Precipitation in SHS prepared NiTi shape memory alloy.
J. Remiášová, J. Drahokoupil, F. Laufek, L. Klimša, P. Haušild, M. Karlík, P. Novák and J. Kopeček
- Combined EPMA, FIB and Monte carlo simulation: a versatile tool for quantitative analysis of chemical structures.
S. Richter and P.T. Pinar
- 50 years of EPMA in the Earth Sciences: a respectable past, a lively present, and a bright future.
R. Rinaldi and X. Llovet
- Electron probe microanalysis on actinide reference materials.
X. Ritter, P. Pöml, S. Brémier and J. Berndt
- SEM/EDS analysis examples below the micrometre scale using an annular SDD: applications in nano, life, cultural heritage, Earth and planetary sciences.
T. Salge, A.D. Ball, E. Bonato, G.R. Broad, C.G. Jones, X. Ma, C.L. Smith, A.T. Kearsley, P.J. Wozniakiewicz, S. Rades, V. D. Hodoroaba, L.S. Bell, , N. Musat, H. Stryhanyuk, M. Falke, B. Hansen and R. Terborg
- TEM specimen preparation of micrometre-sized anatase particles in order to observe their internal structure.
A. Šestan, S.D. Škapin and V. Žunič
- Role of metal impurities in the generation of defects in anodic layers of Nb₂O₅ as a dielectric of oxide electrical capacitors.
L. Skatkov, V. Gomošov, L. Liashok and B. Bayrachniy
- EPMA analysis of boron in tourmaline: influence of crystal orientation.
R. Škoda and R. Čopjaková
- High-coercivity Nd-Fe-B permanent magnets based on the electrophoretic deposition of TbF₃.
M. Soderžnik, S. Kobe, M. Katter and K. Üstüner

- Improved spectrum simulation for validating SEM-EDS analysis.
P. Statham, C. Penman and P. Duncumb
- Combined EDS and μ -XRF analysis in scanning electron microscopes.
R. Terborg, B. Hansen and R. Tagle
- Effect of shape and thickness of asbestos bundles and fibres on EDS microanalysis: a Monte Carlo simulation.
G. Valdrè and D. Moro
- “True(r)” colour cathodoluminescence imaging in the scanning electron microscope.
E.P. Vicenzi
- Electron microprobe and Raman spectroscopic data of a Pt-Fe-Pd-Ni-Cu-O phase from the chromitites of Nurali (Southern Urals, Russia).
F. Zaccarini, G. Garuti, R.J. Bakker and E. Pushkarev
- Pyrite-pyrrhotite intergrowths in calcite marble from Bistriški Vintgar, Slovenia.
J. Zavašnik
- Quantification of erbium-doped oxy fluoride glass. Comparison of standards-based EPMA/WDS and standardless SEM/EDS analyses.
M. Żelechower, E. Augustyn, M. Świdarska, E. Czerska and P. Dzierżanowski
- Microstructural changes of OCR 12 tool steel modified by rare earths.
K. Zelič, M. Godec, B. Šetina Batič, J. Burja and F. Tehaovnik



Young Scientists' Session

EMAS Thesis Award presentation

- Contribution to the physical modelling of the actinide characterisation by electron probe microanalysis.

A. Moy

- Mitigating thermal beam damage with metallic coatings in low voltage FEG-EPMA of geological materials.

B. Buse, S.L. Kearns and J. Wade

- New methods to estimate the internal pressure of xenon in fission bubbles using SEM EPMA-SIMS and EBSD in irradiated fuels.

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- Electron channelling contrast reconstruction with electron backscattered diffraction.

S. Kaboli, H. Demers, N. Brodusch and R. Gauvin

- Micro- and nanoscale investigations on gas shales from the Dniepr Donets Basin (Ukraine): implications for shale gas potential.

D. Misch, D. Gross, F. Mendez Martin, P. Onuk and R.F. Sachsenhofer

- Electron probe microanalysis on actinide reference materials.

X. Ritter, P. Pöml, S. Brémier and J. Berndt

MAS-USA Student Award Winner presentation

- An *in ovo* investigation of the ultrastructural effects of the heavy metals cadmium and chromium on liver tissue.

C. Venter, H.M. Oberholzer, H. Taute, M.J. Bester and C.F. van der Merwe

AMAS Student Award Winner presentation

- Determination of oxygen vacancies and Ce^{3+} in Tb-CeO₂ mixed oxides using EELS.

A. M. D'Angelo, A.C.Y. Liu and A.L. Chaffee