

## GENERAL TIMETABLE

	<b>SUNDAY 10th SEPTEMBER</b>	<b>MONDAY 11th SEPTEMBER</b>	<b>TUESDAY 12th SEPTEMBER</b>		<b>WEDNESDAY 13th SEPTEMBER</b>		
09:00 - 09:30		<b>Plenary Session 1</b>	<b>SEM/STEM imaging</b>	<b>EM in Materials Science</b>	<b>In-situ microscopy</b>	<b>EM in Materials Science</b>	
09:30 - 10:00							
10:00 - 10:30							
10:30 - 11:00		<b>Coffee Break</b>	<b>Coffee Break</b>		<b>Coffee Break</b>		
11:00 - 11:30		<b>Plenary Session 2</b>	<b>Orientation mapping</b>	<b>EM in Chemistry and Life Sci</b>	<b>Young Scientist Session</b>	<b>EM in Materials Science</b>	
11:30 - 12:00							
12:00 - 12:30							
12:30 - 13:00							
13:00 - 13:30		<b>Lunch</b>	<b>Lunch</b>		<b>Lunch and Farewell</b>		
13:30 - 14:00							
14:00 - 14:30		<b>Plenary Session 3</b>	<b>SEM/STEM imaging</b>	<b>Electron Crystallography and HRTEM</b>			
14:30 - 15:00							
15:00 - 15:30							
15:30 - 16:00		<b>Coffee Break</b>	<b>Coffee Break</b>				
16:00 - 16:30	<b>Registration</b>	<b>Analytical EM</b>	<b>EM in Materials Science</b>	<b>Young Scientist Session</b>			<b>3D imaging</b>
16:30 - 17:00							
17:00 - 17:30							
17:30 - 18:00							
18:00 - 18:30	<b>Opening Session</b>	<b>Poster Session</b>					
18:30 - 19:00							
19:00 - 20:00	<b>Welcome Reception</b>	<b>BBQ Party</b>	<b>Conference Dinner</b>				
20:00 - 21:00							
21:00 - 22:00							

## CONFERENCE PROGRAMME

SUNDAY 10<sup>TH</sup> SEPTEMBER 2017

	OPENING SESSION	
	Room 1	Chairperson: Małgorzata Lewandowska
18:00 – 18:05	<b>Małgorzata Lewandowska</b> the Chairperson of the Conference <b>Welcome address and introduction to the conference</b>	
18:05 – 18:10	<b>Jarosław Mizera</b> the Dean of the Faculty of Materials Science and Engineering of Warsaw University of Technology <b>Welcome address and opening of the conference</b>	
18:10 – 18:15	<b>Jerzy Morgiel</b> the President of the Polish Society for Microscopy <b>Welcome address</b>	
18:15 – 19:00	<b>Robert (Bob) Sinclair</b> Department of Materials Science & Engineering, Stanford University, Stanford, USA <b>Opening lecture: “In-situ high resolution and environmental electron microscopy studies of material reactions”</b>	
19:00 – 22:00	<b>Welcome Reception</b>	

## CONFERENCE PROGRAMME

MONDAY 11<sup>TH</sup> SEPTEMBER 2017

PLENARY SESSION 1	
	Room 1 <span style="float: right;">Chairperson: Jerzy Morgiel</span>
9:00 – 9:45	<b>Marco Cantoni</b> Interdisciplinary Centre for Electron Microscopy, École Polytechnique Fédérale de Lausanne, Switzerland <b>“Advanced FIB nano-tomography techniques for materials- and life-science”</b>
9:45 – 10:30	<b>Rafal E. Dunin-Borkowski</b> Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons, Research Centre Juelich, Germany <b>“Electron holography of two-dimensional transition metal dichalcogenides”</b>
10:30 – 11:00	<b>Coffee Break</b>
PLENARY SESSION 2 – GOLD SPONSORS	
	Room 1 <span style="float: right;">Chairperson: Elżbieta Jezierska</span>
11:00 – 11:30	<b>Guillaume Brunetti</b> JEOL Europe <b>“Advantages of Cold FEG by JEOL: explanation by applications”</b>
11:30 – 12:00	<b>Felix von Cube</b> Hitachi High Technologies Europe <b>“STEM at 30 kV – a new approach to analysis and imaging”</b>
12:00 – 12:30	<b>Mathias O. Mossing</b> Protochips <b>Protochips™ in-situ electron microscopy solutions: capabilities and applications</b>
12:30 – 13:00	<b>Dominique Delille</b> Thermo Fisher Scientific <b>Sub-30 meV energy resolution HR-EELS and novel HR-STEM techniques for materials science in the latest generation of Thermo Scientific Themis Z</b>
13:00 – 14:00	<b>Lunch</b>

## CONFERENCE PROGRAMME

MONDAY 11<sup>TH</sup> SEPTEMBER 2017

		PLENARY SESSION 3	
	Room 1	Chairperson: Aleksandra Czyrska-Filemonowicz	
14:00 – 14:45	<b>Randi Holmestad</b> Norwegian University of science and Technology, NTNU in Trondheim, Norway <b>“Precipitates in age hardenable aluminium alloys studied by advanced TEM techniques”</b>		
14:45 – 15:30	<b>PTMi Award Ceremony and lectures of the laureates</b>  <b>Joanna Moneta</b> „The considerable increase of the state of strain relaxation of the (0001) InGaN epilayers achieved by the post-growth annealing” <b>Monika Solecka</b> „Transmission electron microscopy investigation of Ni-base alloys after cladding using CMT technique” <b>Oleksii Bezkravnyi</b> „Defect structure of cube-shaped Ce <sub>1-x</sub> Eu <sub>x</sub> O <sub>2</sub> nanoparticles”		
15:30 – 16:00	<b>Coffee Break</b>		
	<b>SESSION: Analytical Electron Microscopy</b> Room 1 Chairperson: A. Czyrska - Filemonowicz	<b>SESSION: Electron Microscopy in Materials Science</b> Room 2 Chairperson: L. Kępiński	
16:00 – 16:15	<b>Philippe Buffat</b> <span style="float: right;"><b>invited</b></span> <i>Present capabilities and limits of EDS for materials science</i>	<b>Alicja Bachmatiuk</b> <span style="float: right;"><b>invited</b></span> <i>In-situ HR-TEM observations of 2D materials</i>	
16:15 – 16:30			
16:30 – 16:45		<b>Joanna Wojewoda-Budka</b> <i>Microstructure-phase composition-thermal stability correlation of Ni-P and Ni-P-Re coatings electroless deposited on copper</i>	
16:45 – 17:00	<b>Piotr Bazarnik</b> <i>Grain boundaries and related phenomena in ultrafine grained Al-Mg alloy processed by high-pressure torsion</i>	<b>Łukasz Cieniek</b> <i>Microstructure and selected mechanical and electrical properties of Sr doped LaCoO<sub>3</sub> perovskite thin films deposited by pulsed laser deposition technique</i>	

## CONFERENCE PROGRAMME

MONDAY 11<sup>TH</sup> SEPTEMBER 2017

	SESSION: Analytical Electron Microscopy Room 1 Chairperson: A. Czyrska - Filemonowicz	SESSION: Electron Microscopy in Materials Science Room 2 Chairperson: L. Kępiński
17:00 – 17:15	<b>Marta Lipińska-Chwałek</b> <i>Atomic resolution insights into structure and deformation of modern, K-strengthened Fe-Mn-Al-C lightweight steel</i>	<b>Joanna Lipecka</b> <i>The melting behaviour of Al/AlN nanomultilayer system</i>
17:15 – 17:30	<b>Bogdan Rutkowski</b> <i>Electron microscopy and spectroscopy for characterization of Sanicro 25 steel after oxidation in steam at 700C</i>	<b>Sławomir Kret</b> <i>The mechanism of plastic relaxation and residual strain in core shell II-VI hetero-nanowires</i>
17:30 – 17:45	<b>Michał Żelechower</b> <i>Nano-crystals in the Er/Yb co-doped oxyfluoride glass-ceramics. The crystal structure and chemistry examination</i>	<b>Radosław Swadźba</b> <i>Comparative STEM Study of TGO Evolution During High Temperature Oxidation of EB-PVD TBCs on Pt and Pd Modified Bond Coatings</i>
	<b>POSTER SESSION</b>	
18:00 – 19:00	<b>Room: ORANŻERIA</b>	
19:00 – 22:00	<b>BBQ Party</b>	

## CONFERENCE PROGRAMME

TUESDAY 12<sup>TH</sup> SEPTEMBER 2017

	SESSION: SEM/STEM Imaging Room 1 Chairperson: T. Płociński	SESSION: Electron Microscopy in Materials Science Room 2 Chairperson: M. Lewandowska
09:00 – 09:15	<b>Quentin Ramasse</b> <b>invited</b>	<b>Kenji Matsuda</b> <b>invited</b>
09:15 – 09:30	<i>High-precision multimodal imaging workflows in the STEM: towards nano-metrology with atomic-level precision</i>	<i>Fine precipitates formed at the early stage of aging in Al alloys containing Cu</i>
09:30 - 09:45	<b>Mariusz Andrzejczuk</b> <i>Three-dimensional characterization of titania nanotubes</i>	<b>Jan Dutkiewicz</b> <i>TEM studies of structure of MgLiAl alloys after various routes of severe plastic deformation</i>
09:45 – 10:00	<b>Grzegorz Moskal</b> <i>Application of electron microscopy methods to characterization of thermal barrier coatings microstructure and phase constituent</i>	<b>Boris Straumal</b> <i>Phase transitions in copper-based alloys under high pressure torsion</i>
10:00 – 10:15	<b>Petr Klimek</b> <b>Silver Sponsor</b> <i>Observation of cracks in austempered ductile cast iron after the tensile test using different SEM Tescan microscopes</i>	<b>Krzysztof Bryła</b> <i>Grain refinement in EZ33A magnesium alloy processed by high-pressure torsion</i>
10:15 – 10:30		<b>Maciej Szczerba</b> <i>Detwinning and dislocations in a face-centered cubic structure</i>
10:30 – 11:00	<b>Coffee Break</b>	

## CONFERENCE PROGRAMME

TUESDAY 12<sup>TH</sup> SEPTEMBER 2017

	SESSION: Orientation Mapping Room 1 Chairpersons: M. Faryna, K. Sztwiertnia	SESSION: Electron Microscopy in Chemistry and Life Science Room 2 Chairpersons: Z. Sojka, G. Tylko
11:00 – 11:15	<b>Nathalie Bozzolo</b> <b>invited</b>	<b>Sebastian Glatt</b> <b>invited</b>
11:15 – 11:30	<i>Orientation mapping, an unavoidable tool for studying recrystallization phenomena</i>	<i>The Architecture of the Elongator complex determined by Integrative Structural Biology</i>
11:30 – 11:45	<b>Ali Gholinia</b> <b>invited</b>	<b>Joanna Depciuch</b>
	<i>Automated three dimensional broad ion beam milling acquisition and analysis</i>	<i>SEM and FTIR investigation of molecular composition changes in allergenic common mugwort (<i>Artemisia vulgaris</i> L.) and hazel (<i>Corylus avellana</i>) pollen induced by traffic pollution</i>
11:45 – 12:00		<b>Joanna Grybos</b>
		<i>Determination of shape and size of Co<sub>3</sub>O<sub>4</sub> nanocrystal catalysts from single STEM measurement</i>
12:00 – 12:15	<b>Krzysztof Kudłacz</b>	<b>Paulina Indyka</b>
	<i>Orientation mapping in TEM part I – new software</i>	<i>Mapping redox states in oxide nanoparticle catalysts</i>
12:15 – 12:30	<b>Magdalena Bieda-Niemiec</b>	<b>Gaurav Sharma</b>
	<i>Orientation Microscopy in TEM part II – case studies</i>	<i>Cryo EM workflows for single particle analysis and tomography of hydrated, intact cells</i>
12:30 – 12:45	<b>Robert Chulist</b>	
	<i>In-situ investigation of the martensitic transformation in Ni-Mn-Ga alloys</i>	
12:45 – 13:00		
13:00 – 14:00	<b>Lunch</b>	

## CONFERENCE PROGRAMME

TUESDAY 12<sup>TH</sup> SEPTEMBER 2017

	SESSION: SEM/STEM Imaging Room 1 Chairperson: T. Płociński	SESSION: Electron Crystallography and HRTEM Room 2 Chairpersons: D. Stróż, P. Dłużewski
14:00 -14:15	<b>Justyna Grzonka</b> <i>Application of low voltage scanning electron microscopy for graphene studies</i>	<b>Janos Labar</b> <b>invited</b> <i>Local short range order in amorphous materials by ePDF analysis</i>
14:15 – 14:30	<b>Rafał Kozera</b> <i>Characterization of self-healing system dedicated for glass fibre reinforced composites</i>	
14:30 – 14:45	<b>Tomasz Tokarski</b> <i>Kikuchi patterns - from diffraction to advanced microstructure analysis</i>	<b>Christoph T. Koch</b> <b>invited</b> <i>Practical aspects of simulation of high-resolution TEM images</i>
14:45 – 15:00	<b>Rafał Wróblewski</b> <i>Microstructural characterization of Ni<sub>50</sub>Mn<sub>28</sub>Ga<sub>22</sub> alloy processed by selective laser melting</i>	
15:00 - 15:15	<b>Andrzej Witkowski</b> <i>How does use of electron microscopy and related tools impacts understanding of unicellular life encased in siliceous exoskeleton of diatom (Bacillariophyta) cell?</i>	<b>Elżbieta Jezierska</b> <i>Defect recognition using LACBED images</i>
15:15 – 15:30		<b>Julita Smalc-Koziorowska</b> <i>Basal stacking fault domains as a source of a-type threading dislocations in III-Nitride epitaxial layers</i>
15:30 – 15:45		<b>Krzysztof Morawiec</b> <i>Lorentz electron holography investigation of nano-objects' magnetic state</i>
15:30 – 16:00	<b>Coffee Break</b>	



## CONFERENCE PROGRAMME

TUESDAY 12<sup>TH</sup> SEPTEMBER 2017

	SESSION: Young Scientists Room 1 Chairpersons: B. Dubiel, M. Sozańska	SESSION: 3D Imaging Room 2 Chairperson: A. Kruk
16:00 – 16:15	<b>Paweł Świec</b> <i>Analysis of amorphous regions in severely marformed NiTi alloy</i>	<b>Juan Carlos Hernández-Garrido</b> <b>invited</b> <i>3D nano-metrology of catalytic-based materials by electron tomography: qualitative information and beyond</i>
16:15 – 16:30	<b>Mikołaj Mitka</b> <i>Microstructure of the mechanically alloyed Al-Cu-Fe-Si quasicrystalline powder</i>	
16:30 – 16:45	<b>Katarzyna Janik</b> <i>Transmission electron microscopy structural investigations of crystalline particles in CuZr-based amorphous- crystalline composites</i>	<b>Urszula Stachewicz</b> <b>invited</b> <i>3D imaging of polymer nanofibers using FIB-SEM tomography</i>
16:45 – 17:00	<b>Marta Lipińska</b> <i>Microstructural characterization of the ultrafine grained aluminium plates obtained by ECAP-PC process with subsequent upsetting</i>	
17:00 – 17:15	<b>Michał Gmitrzuk</b> <i>Influence of the speed deformation on formation of the adiabatic shear bands in steels with various microstructure</i>	<b>Petr Klimek</b> <i>Focused ion beam tomography as a tool for bio-inspired structural design</i>
17:15 – 17:30	<b>Oskar Dziuba</b> <i>Effect of postweld heat treatment on the microstructure and mechanical properties of as-cast Allvac 718Plus electron beam welded joint</i>	<b>Joanna Karbowniczek</b> <i>FIB-SEM tomography in biomaterials research</i>
17:30 – 17:45	<b>Piotr Ledwig</b> <i>Microstructure characterization of Ni-Fe and nc-TiO<sub>2</sub>/Ni-Fe coatings electrodeposited on copper substrate</i>	<b>Karol Szlązak</b> <i>Micro-computed tomography images conversion applied to a tissue engineering scaffold for finite element models and their mechanical properties</i>

**CONFERENCE PROGRAMME****TUESDAY 12<sup>TH</sup> SEPTEMBER 2017**

	<b>SESSION: Young Scientists</b> Room 1 Chairpersons: B. Dubiel, M. Sozańska	<b>SESSION: 3D Imaging</b> Room 2 Chairperson: A. Kruk
17:45 – 18:00		<b>Grzegorz Cempura</b> <i>Application of analytical electron microscopy and FIB-SEM tomographic technique for phase analysis in as-cast Allvac 718Plus superalloy</i>
19:00 – 22:00	<b>Conference Dinner</b> <b>The Victoria Restaurant</b>	

## CONFERENCE PROGRAMME

WEDNESDAY 13<sup>TH</sup> SEPTEMBER 2017

	SESSION: In-situ Microscopy Room 1 Chairperson: J. Morgiel	SESSION: Electron Microscopy in Materials Science Room 2 Chairperson: K. Matsuda
09:00 – 09:15	<b>Eva Olsson</b> <span style="float: right;"><b>invited</b></span> <i>Linking atomic structure to properties. In Situ Electron Microscopy Studies of Functional Materials</i>	<b>Jan Kusiński</b> <i>Microstructure and properties of laser interference crystallized amorphous FeSiB (Cu,Nd) ribbons</i>
09:15 – 09:30		<b>Wojciech Maziarz</b> <i>Microstructural phenomena in NiCuCoMnSn Heusler metamagnetic shape memory alloy ribbons</i>
09:30 - 09:45	<b>Magdalena Parlińska-Wojtan</b> <i>In situ observations of PtNi solid nanocrystals transformation into hollow PtNiSn nanoframes by galvanic replacement reaction</i>	<b>Paweł Czaja</b> <i>Heat treatment effects on the evolution of microstructure and atomic order in metamagnetic shape memory alloys</i>
09:45 – 10:00	<b>Katarzyna Stan-Głowińska</b> <i>Stability of quasicrystalline phases and their approximants in Al-alloys investigated by in-situ TEM</i>	<b>Emilia Skołek</b> <i>The microstructure of cast steel subjected to austempering heat treatment - the time effect</i>
10:00 – 10:15	<b>Witold Chromiński</b> <i>In-situ observations of dislocation activities in ultrafine-grained aluminium extruded to high strains</i>	
10:15 – 10:30	<b>Oleksandr Kryshstal</b> <i>Melting process and the size dependence of the eutectic temperature of Ag-Ge films</i>	
10:30 – 11:00	<b>Coffee Break</b>	

**CONFERENCE PROGRAMME**

**WEDNESDAY 13<sup>TH</sup> SEPTEMBER 2017**

	<b>SESSION: Young Scientists</b> Room 1 Chairpersons: B. Dubiel, M. Sozańska	<b>SESSION: Electron Microscopy in Materials Science</b> Room 2 Chairperson: A. Bachmatiuk
11:00 – 11:15	<b>Łukasz Maj</b> <i>Ti/Al multilayers in-situ TEM heated vs. current pulse treated</i>	<b>Hans Dijkstra</b> <i>Microanalysis of Mo<sub>5</sub>SiB<sub>2</sub> with EDS and WDS</i>
11:15 – 11:30	<b>Grzegorz Cios</b> <i>High resolution transmission Kikuchi diffraction analysis of TiN thin films</i>	<b>Iwona Jóźwik</b> <i>High resolution SEM characterization of nano-precipitates in ODS steels</i>
11:30 – 11:45	<b>Anna Kaleta</b> <i>Semi coherent nano-precipitations in the core-shell semiconductor/intermetallic hybrid nanowires</i>	<b>Piu Rajak</b> <i>Correlation of mean inner potential depths at a SrTiO<sub>3</sub> bicrystal grain boundary annealed at different temperatures with thermal roughening transition</i>
11:45 – 12:00	<b>Mateusz Jędrusik</b> <i>Synthesis and characterization of LaFeO<sub>3</sub> thin films for mixed potential sensor</i>	<b>Justyna Grzegorek</b> <i>Computer quantitative analysis of porosity of copper powder and multi-walled carbon nanotubes composites basing on SEM images</i>
12:00 – 12:15	<b>Anna Wójcik</b> <i>Structure and inverse magnetocaloric effect in Ni–Co–Mn–Sn(Si) Heusler alloys</i>	<b>Marta Gajewska</b> <i>Electron microscopy studies of Fe/TiC composite zones produced in situ using different forms of carbon</i>
12:15 – 12:30	<b>Krzysztof Matus</b> <i>Investigation of metal/ceramic interface structure in aluminium/corundum composite obtained by gas pressure infiltration</i>	<b>Jan Neuman</b> <b>Silver Sponsor</b> <i>SPM/SEM integration and new Correlative Probe and Electron Microscopy (CPEM) tool for nanoscience</i>
12:30 – 12:45	<b>Tomasz Ratajski</b> <i>Microstructural investigation of SiO<sub>2</sub>/Ni nanocomposite coatings</i>	
13:00 – 14:00	<b>Lunch and Farewell</b>	

## POSTER SESSION

MONDAY 11<sup>TH</sup> SEPTEMBER 2017

18:00 – 19:00

*During the poster session, beer sponsored by PIK Instruments will be served.*

1. **Adamczyk-Cieślak Bogusława** "The influence of different degree of deformation on microstructure and mechanical properties of gamma Fe single crystal after HE process"
2. **Badura Kamil** "Wettability and interfacial microstructure characteristics of  $Zr_{52}Ti_{24}X_{14}Cu_{10}$  (X=Ni, Pd) alloys on Ti-6Al-4V substrate"
3. **Bilska Benadetta** "The electron microscopy studies on the antibacterial effect of chemerin-derived peptides"
4. **Bobrowski Piotr** "3D-EBSD investigation of grain-boundary structures in copper subjected to channel die pressing"
5. **Boczkal Sonia** "Phase analysis in MgYCa and MgLiCa alloys with the addition of 1%Zn"
6. **Boryło Paulina** "Surface morphology characteristic of zinc oxide thin films deposited according to sol-gel method"
7. **Brzoza Agnieszka** "Influence of Cu addition on structure and martensitic transformation in  $Ni_{50}Mn_{25}Ga_{(25-x)}Cu_x$  (x=1-10) shape memory alloys"
8. **Cempura Grzegorz** "Morphological evolution and X-ray investigation of  $\gamma'$  precipitates in Ni based superalloy during rapid quenching"
9. **Chlewicka Monika** "The effect of minor addition of Ag, Cu, Sn on the microstructure of alloys from the Mg-Zn-Ca system"
10. **Chmiela Bartosz** "Evaluation of the structure of aero engine turbine blade made of nickel-base superalloy after hot isostatic pressing"
11. **Chmielewska Agnieszka** "Calcium-phosphate coatings fabricated by electrodeposition method studied with electron microscopies"
12. **Chromiński Witold** "TEM observations of damages in tungsten targets subjected to W+deuterium and W+He irradiation"
13. **Drzymała Elżbieta** "Synthesis and characterization of ternary nanocatalysts for ethanol oxidation"
14. **Dymek Stanisław** "Electron Microscopy Study of Friction Stir Welded Dissimilar Aluminum Alloys"
15. **Góral Anna** "Effect of Powder Morphology on Microstructure and Properties of Cold Sprayed Ni Coatings"

16. **Gruzeł Grzegorz** "Transformation of PtNi solid nanocrystals into PtNiSn nanoframes by galvanic replacement reaction"
17. **Janusz Marta** "Microstructure characterization of wear mechanisms of nano-composites, protective amorphous carbon coatings (a-C:H), implanted by metallic nano-particles"
18. **Jarzębska Anna** "SEM/EBSD investigations on recrystallization behavior of biodegradable low-alloyed zinc after hydrostatic extrusion"
19. **Kalemba-Rec Izabela** "Microstructural evolution in stirred zone of friction stir welded aluminum alloys 5083 and 7075"
20. **Koprowski Paweł** "Analysis of precipitates obtained by micro-additions in technical purity aluminium alloy AA1070: A scanning electron microscopy study"
21. **Kopyściański Mateusz** "Microstructural characterization of friction stir welds of the 6082 aluminum alloy produced with bobbin tool"
22. **Koralnik Mateusz** "SiC based ceramic shell molds investigation"
23. **Koralnik Milena** "Low-cycle fatigue behavior and microstructural evolution in the low alloy rail steel"
24. **Korniewa-Surmacz Anna** "Microstructure evolution in the Cu-8%wt. Ag alloy subjected to HPT"
25. **Krawczyńska Agnieszka** "Microstructure characterization of nanograined stainless steel 316LVM annealed under high hydrostatic pressure"
26. **Kryshtal Oleksandr** "Microstructure and phase composition of the Ag-Al film wear track: through-thickness characterization by advanced electron microscopy"
27. **Kupczyk Aleksandra** "Microstructure characterization of wear mechanisms of bio-tribological multilayer coatings performed by TEM"
28. **Lachowski Artur** "High-resolution transmission electron microscopy study of GaSb grown on (001)GaAs by molecular beam epitaxy"
29. **Lech Sebastian** "Microstructure of the oxide scale formed on Allvac 718Plus superalloy during oxidation in dry- and wet air characterised by analytical electron microscopy"
30. **Leszczyńska-Madej Beata** "Processing of aluminium by hydrostatic extrusion – studies of microstructure, properties and thermal stability"
31. **Lewandowska Małgorzata** "Microstructural evolution of Ag/AlN and Ag-Cu/AlN nanomultilayers upon heating"
32. **Lityńska-Dobrzyńska Lidia** "Microstructure of ZE41A matrix composite reinforced by nano-SiC prepared by semi-solid processing"
33. **Łukowiec Dariusz** "Synthesis, structure, and properties of Fe<sub>3</sub>S<sub>4</sub> and MFe<sub>2</sub>O<sub>4</sub> (M=Sn, Sr, Mg and Sn) nanoparticles"

34. **Madaj Marcin** "The microstructural analysis of spark plasma sintered HSS – iron materials"
35. **Małecka Małgorzata** "Characterization and thermal stability of the Yb-doped ceria nanoparticles prepared by shape selective method"
36. **Moszczyńska Dorota** "In-situ TEM study of recrystallization in Cu – 8.5%at.Al alloy processed by hydrostatic extrusion process"
37. **Mukhovskiy Roman** "SEM studies of nanoparticles layers formed by using ultrasonic method"
38. **Płociński Tomasz** "Microstructure of cobalt based coatings fabricated by different techniques"
39. **Rogal Łukasz** "Effect of Al, Y, Ir and Re addition on microstructure and mechanical properties of Hf-Sc-Ti-Zr based high entropy alloy"
40. **Rozmus-Górniewska Magdalena** "Microstructure and properties of Inconel 625 surface layer modified by a Laser Shock Processing"
41. **Sobczak Kamil** "EELS measurements and DFT calculations of the topological insulator Bi<sub>2</sub>Se<sub>3</sub> doped with Cu"
42. **Sozańska Maria** "Characterization of the oxidation behavior of DMV 617 mod superalloy by different electron microscope techniques"
43. **Sypień Anna** "Induction brazed Ti-6Al-4V alloy: Microstructure changes and phase transformation during annealing"
44. **Turczyński Sylwia** "The influence of the impregnation order of cobalt and potassium on the surface state and catalytic performance in the ethanol steam reforming of ceria-supported catalysts"
45. **Tylko Grzegorz** "Scanning electron microscopy and X-ray microanalytical studies on elemental changes in muscles of Drosophila exposed to acrylamide"
46. **Ura-Bińczyk Ewa** "Advanced electron microscopy as a useful tool to evaluate the corrosion mechanism of carbon steels used in shale gas production"
47. **Wierzbicka-Miernik Anna** "*Periodic layers structure formation in the solid state reactions*"
48. **Wiśniewski Paweł** "Evaluation of cooling time of SiC/Nanoalumina ceramic shell molds using thermal imaging camera"
49. **Woźniak Bartosz** "SEM investigations of the mechanism of formation and growth of nanohydroxyapatite layers coated with ultrasonic method"
50. **Wróbel Mirosław** "Microstructure of Friction Stir Welded AlSi9Mg Cast and 5083 Wrought Aluminum Alloys"

51. **Wysocki Bartłomiej** "Electron microscopy characterization of CP titanium fabricated by Selective Laser Melting (SLM)"
52. **Yamashita Taiji** "Optimization of the SEM observation of planktons with pre-treatment using ionic liquid"
53. **Zdunek Joanna** "Influence of hydrostatic extrusion process on the microstructure and texture of polycrystalline nickel"
54. **Ziętala Michał** "Transformation of microstructure of single- and multilayers specimens made of 316L stainless steel produced by Laser Engineered Net Shaping (LENS)"
55. **Ziętara Maciej** "Application of 3D imaging for qualitative and quantitative characterization of gas turbine blade after service exposure"
56. **Zubko Maciej** "AlCoCrCuFeNi High-Entropy Alloy studied by Beam Precession Methods"