PLENARY SESSION

JURČI Peter Slovak University of Technology, Trnava, Slovakia, EU 14
High-alloyed Ledeburitic Cold Work Tool Steels

NOVÁK Pavel University of Chemistry and Technology Prague, Prague, Czech Republic, EU 14
The History, Present and Future of the Use of Intermetallics

SESSION A - F

SESSION A - ADVANCED TECHNOLOGIES IN IRON, STEEL AND FOUNDRY PRODUCTION

MAUDER Tomáš Brno University of Technology, Brno, Czech Republic, EU 16
Digital Twin of Continuous Steel Casting and its Optimization

OLARU Paul SCO Consulting CH-Luzern, Luzern, Switzerland 16
The Steel Decarbonization Improve Solutions Continuous-Casting Green Steel

BAJŽELJ Anže Institute of Metals and Technology, Ljubljana, Slovenia, EU 17
Optimization of Partial Stainless Steel Melt Oxidation in the EAF

LANZERSTORFER Christof University of Applied Sciences Upper Austria, Wels, Austria, EU 17
Handling of Fine Granular Bulk Material: Reduction of Particle Wall Friction by Diamond-like Carbon Coating

LASTAM Jeraldine Forschungszentrum Jülich, Juelich, Germany, EU 17
Transforming end-of-life Solid Oxice Cell (SOC) metallic components into commercial grade austenitic stainless steels

BABANEJAD Safoura Lulea University of Technology, Lulea, Sweden, EU 18
Effect of Slag Basicity on Recovery of Precious Elements from Lithium-ion Battery Black Mass

HEJNA Marek University of West Bohemia, Pilsen, Czech Republic, EU 18
Evaluation of the Mechanical Properties of Crystalline Thermoplasts

MANTELLI Anna University of Brescia, Brescia, Italy, EU 18
Risk Assessment of Casting Powders Entrapment in a 26-ton Steel Ingot Using Numerical Simulation

SESSION B - METAL FORMING

MOHNFELD Norman Leibniz Universität Hannover, Garbsen, Germany, EU 20
Development of a Test Setup for the Experimental Determination of the Heat Transfer Coefficient for Compound Forging

PIWEK Armin Institute of Forming Technology and Forming Machines, Garbsen, Germany, EU 20
Influence of Cu-Interlayers on Pre-joined and Impact Extruded Steel-Aluminium-Components

WOJCIECHOWSKI Mateusz Brembo Poland, Dąbrowa Górnicza, Poland, EU 21
Gray Cast Iron Crystallization Applied for Automotive Castings

HNIZDIL Milan Brno University of Technology, Brno, Czech Republic, EU 21
Cold Rolling - Cooling Enhancement and Optimization

KONOFOL Mikołaj Silesian University of Technology, Gliwice, Poland, EU 21
Physical Modeling of Material Flow in the KoBo Extrusion Process

MAJEWSKI Marcin Research Network Łukasiewicz - Poznan Institute of Technology, Poznań, Poland, EU 22
The Rotational Forming of Axially Asymmetrical Details

WOJTASZEK Marek AGH University of Krakow, Cracow, Poland, EU 22
Selected Aspects of Multi-stage Hot Forging of 80MnSi8-6 Steel

REIS Murat Bursa Uludag University, Bursa, Turkey 23
Investigation of the Effect of Angular Positioning Errors on Weld Quality in Manual Laser Spot Welding of Thin Stainless Steel

GÖRTAN Mehmet Okan Hacettepe University, Ankara, Turkey 23
Effect of Forging Temperature on the Final Properties and Grain Structure of Artificially Aged EN AW 6056 Aluminum Alloy

NAVUKKARASU Deepan JSW Steel Ltd, Salem, India 23
Development of Grinding Media in JSW Steel Salem Works

SESSION C - STEELS, PROPERTIES, STEEL PRODUCTS, TESTING

ARLAZAROV Artem ArcelorMittal Global Research and Development, Maizi`eres-l`es-Metz, France, EU 25
Influence of Annealing Temperature on Microstructure and Mechanical Properties of Double Annealed Medium Mn Steels

KOSTKA Michał Silesian University of Technology, Katowice, Poland, EU 25
Analysis of the Microstructure and Energy Absorption Capacity of High-manganese Steel Deformed under Static and Dynamic Loading Conditions

KAŹMIERSKI Tomasz AGH University of Krakow, Cracow, Poland, EU 26
Effect of Annealing Temperature, Intercritical Pause and Initial Microstructure of Low Carbon Steel on DP Microstructure Formation

DASTUR Pedram WMG, University of Warwick, Coventry, United Kingdom 26
Development of a Segregation-neutralised Dual Phase Steel for an Improved Formability

NAVUKKARASU Deepan JSW Steel Ltd, Salem, India 27
Advanced High Strength Steel for Automotive: Light weighting and Sustainability

KANDER Jan MATERIÁLOVÝ A METALURGICKÝ VÝZKUM s.r.o., Ostrava, Czech Republic, EU 27
Assessment of Brittle Fracture Properties by Small Punch Test

FILATOV Andrei DanSteel A/S, Frederiksvaerk, Denmark, EU 27
Strain and Strain Aging Characteristics of Low-carbon Microalloyed Heavy Plate Steel Grade S460MLO with Pre-qualification for Arctic Areas

SINGH Pravendra Pratap IIT Roorkee, Roorkee, India 28
Strengthening Mechanisms and Failure Analysis of Hot-rolled Nb+V Microalloyed Steel Processed at Different Coiling Temperatures

SHARMA Kapil Dev Indian Institute of Technology-Roorkee, Roorkee, India 28
Thermo-Kinetic Simulation as a Tool for Crafting Processing Schedules to Govern the Cu-Precipitation in low carbon steels

HAMRYSZCZAK Tomasz AGH University of Krakow, Cracow, Poland, EU 28
The Analysis of Chosen Parameters of Thermomechanical Rolling of HSLA Steels

ŚCIBISZ Kamila AGH University of Krakow, Cracow, Poland, EU 29
Analysis of Precipitation and Dissolution Processes in the Context of Grain Oriented High Silicon Steel Production Technology

TOME Samo University of Ljubljana, Ljubljana, Slovenia, EU 29
AISI H13 Tool Steel - Comparison between Powder Bed Fused and Conventionally Produced Parts

PATE Sushant Bhalchandra Kaunas University of Technology, Kaunas, Lithuania, EU 29
Methodology for Numerical Simulation of the Low Cycle Fatigue Life

BURJA Jaka University of Ljubljana, Ljubljana, Slovenia, EU 30
Corrosion of Household Mixer Heads

ALTIN Muhammed Cihat Yuzuncu Yil University Van Meslek Yuksekokulu, VAN, Turkey 30
Methods Used to Predict the Effective Wind Speed Using Different Methods

SESSION D - SURFACE ENGINEERING

JEPKENS Jan Leibniz Universität Hannover, (IFUM), Garbsen, Germany, EU 31
Influence of Deformation on the Interface Properties of Coated Fuselage Shells

KREISLOVÁ Kateřina SVÚOM Ltd., Prague, Czech Republic, EU 31
Identification of Defects on NiDi Coating

SZYMKIEWICZ Krzysztof Cracow University of Technology, Cracow, Poland, EU 31
FEM Analysis of Nitride and Hydroxyapatite Layers Formed on Titanium Alloy for Biomedical Applications

POKUSOVÁ Marcela Slovak University of Technology in Bratislava, Bratislava, Slovakia, EU 32
Plasma-electrolyte Polishing of Low Alloyed Steel 16MnCrS5

GAVALEC Matúš Slovak University of Technology in Bratislava, Trnava, Slovakia, EU 32
Monitoring the Corrosion Behavior of the Operated and Non-operated Material of the Main Circulation Pipe VVER 440 Type Reactor

ORIHEL Peter Slovak University of Technology in Bratislava, Trnava, Slovakia, EU 33
Evaluation of Fracture Toughness of Boride Layers on high Chromium Steels

YENER Tuba Sakarya University, Turkey, Sakarya, Turkey 33
Production and Characterization of Siliside Coating on MIRRAX ESR Alloy by Pack Cementation Method

BEINORAS Paulius Vilniustech, Vilnius, Lithuania, EU 33
Studies of Properties of Microcomposite Conductor Diffusion Welding Joints

MOHNFELD Norman Leibniz Universität Hannover, Garbsen, Germany, EU 34
Characterisation of Oxide Scale Layerson Iron-based Steels for Hot Forging on the Nanoscale

KUDLÁČ Marek Slovak University of Technology in Bratislava, Trnava, Slovakia, EU 34
Effect of Final Machining on Corrosion Properties and Stress Corrosion Cracking Susceptibility of Austenitic Stainless Steel

ALTAY Meryem Uludag University, BURSA, Turkey 34
Effect of Overlap Ratio on Porosity and Microhardness of 42C Martensitic Stainless Steel on FGS600-3A Ductile Cast Iron in Laser Cladding Technology

THANG Vu Dinh Viettel aerospace institute, Hanoi, Vietnam 35
On the Manufacturing of Electromagnetic Radiation Absorbent Paints Using Carbon-based Materials and Polyurethane Resin

CIEŚLAK Grzegorz Łukasiewicz Research Network - Warsaw Institute of Technology, Warszawa, Poland, EU 35
Structure and Properties of Cu/carbon Phase Composite Coatings Produced by Electrochemical Reduction Method

ALTIN Abdullah Yuzuncu Yil University Van Meslek Yuksekokulu, VAN, Turkey 36
Comparison of the Results Obtained in Turning Inconel 718 Superalloy, with PVD and CVD cutting tools

SESSION E - NON-FERROUS METALS AND ALLOYS

PAVLÁSEK Lukáš AL INVEST Břidličná, a.s., Břidličná, Czech Republic, EU 37
TiBAl Outperforms TiCAl in Grain Refinement Efficiency of Enhanced EN AW-3003 Aluminium Alloy Prepared by Twin-Roll Casting

CHOWANIEC Leszek Superior Industries Production Poland Sp. z o.o., Stalowa Wola, Poland, EU 37
Production Technology OF Car Rims Made of AlSi7Mg Alloy

BOZKURT Fatih Eskişehir Technical University, Vocational School of Transportation, Eskisehir, Turkey 38
The Effect of Anodizing Time on the Tribological Properties of 6061-T6 Aluminum Alloy

GIANSANTE Emidio University of Padova, Padova, Italy, EU 38
Influence of Chemical Composition on the Hot Tearing Susceptibility of Wrought 6005 Aluminium Alloys

RAJAN Gaurav Indian Institute of Technology Roorkee, Roorkee, India 38
Effect of Cryogenic Cooling-Controlled FSP on Recrystallization Behavior of AA5083-SiC Nanocomposite Produced by Stir Casting

PALCUT Marián Slovak University of Technology in Bratislava, Trnava, Slovakia, EU 39
Microstructure, Phase Constitution and High Temperature Corrosion Resistance of As-cast Al-Fe-Co-Ni-Cu Alloys

RONČÁK Ján Institute of Scientific Instruments of the CAS, Brno, Czech Republic, EU 39
Weld Evaluation of Eutectic High-entropy Alloy and Austenitic Steel Formed by EBW

ŻAK Katarzyna AGH University of Krakow, Cracow, Poland, EU 39
The HPDC Machine Casting Parameters Impact on Casting Porosity and Microstructure - Numerical and Experimental Analysis on the Base of Selected Machine Settings

CHAHAR Sonika Indian Institute of Technology Roorkee, Rookee, India 40
Phase Transformation Kinetics in Superni 625 and its Effects on Deformation Micromechanisms and Mechanical Properties

LEJČEK Pavel Institute of Physics of the CAS, Prague, Czech Republic, EU 40
Deformation Laws of Cu-Ag Metal-matrix Composites

CHACZYK Agnieszka AGH University of Krakow, Cracow, Poland, EU 41
Characterization of the Properties and Acicular Microstructure of a Lead-free Copper Alloy

REŽNAR Jiří Advanced Metal Powders Ltd., Kravaře, Czech Republic, EU 41
Biocompatible TiNbTaSn-based Alloys Obtained by Recycling

DROTÁROVÁ Lenka Brno University of Technology, Brno, Czech Republic, EU 41
Vat Photopolymerization Assisted Additive Manufacturing of Titanium Scaffolds

CIESLAR Miroslav Charles University, Prague, Czech Republic, EU 42
Thermal Stability of Ti Nanoparticles Coated by Ni

FRIÁK Martin Institute of Physics of Materials of the CAS, Brno, Czech Republic, EU 42
First-principles Study of Structure-property Relations in Pb-supersaturated Sn-rich Pb-Sn Alloys

MACHAJDÍKOVÁ Tereza Slovak University of Technology, Trnava, Slovakia, EU 42
Investigation of Phase Composition, Microstructure and Thermal Behavior of Sn-3.0Ag-0.5Cu Solder Alloys with Ni Addition

MICHALCOVÁ Alena Institute of Chemical Technology in Prague, Prague, Czech Republic, EU 43
The Zn Influence on Degradation Behaviour of Sn-based Materials

WA KALENGA Michel Kalenga University of Johannesburg, Johannesburg, South Africa 43
MnO Activities Determination for Basic Manganese Ores in the Coke Bed Zone

FINK Dominika University of Chemistry and Technology Prague, Prague, Czech Republic, EU 43
Investigating the Effect of (NH4)2SnCl6 on the Tin Pest Process

NGUYEN Hoang Tung University of Defence, Prague, Czech Republic, EU 44
Contribution to Surface Texture Characterization of 3D Printed Parts

HOLT Johannes Leibniz Universität Hannover, Hannover, Germany, EU 44
A Novel Method for Manufacturing Hybrid Metal - Fiber Reinforced Plastics Composite Structures Using a Multidirectional Forming Process

VILIŠ Jindřich University of Defence, Brno, Czech Republic, EU 45
Influence of Water Absorption on Tensile and Flexural Properties of Composite Samples

HULAČOVÁ Simona Slovak University of Technology in Bratislava, Trnava, Slovakia, EU 45
Deposition of Protective Thin Layers on Striated REBCO Superconducting Tapes

TIMELLI Giulio University of Padova, Vicenza, Italy, EU 45
Numerical Simulation of Fluid Flow and Casting Defects of a Gas Control Valve Produced by High Pressuer Die Casting

PATRONOV Georgi Paisii Hilendarski University of Plovdiv, Plovdiv, Bulgaria, EU 46
Energy and Environmental Assessment of Processing the Secondary Raw Materials in Hydrometallurgical Zinc Production

LOGROSA Gernelyn Mapua Malayan Colleges Mindanao, Davao City, Philippines 46
Application of Ethaline Deep Eutectic Solvent for Dissolution of Gold in Sulfidic Refractory Ore

MAGHUYOP Harvin Lee B. Mapua Malayan Colleges Mindanao, Davao City, Philippines 47
Gold Metal Dissolution from Refractory ore through Calcium Hypochlorite and Sodium Chloride leaching process

SESSION F - ECONOMICS AND PRODUCTION MANAGEMENT IN THE METALLURGICAL, STEEL AND RELATED INDUSTRIES

WALICA Kryštof TŘINECKÉ ŽELEZÁRNY, a.s., Třinec, Czech Republic, EU 48
Digitalization of Intra-company Road Freight Transport

BARBIER David Fives Keods, Maisons-Alfort, France, EU 48
On the Use of Physical Based Model for Automatic Strip Processing Line Control: Linking Process and Metallurgy on Real-time Basis for the Production of Flat-C Steels

OLLAGNIER Arnaud Fives Keods, Maisons-Alfort, France, EU 49
Process and Profitability Improvements made Possible by Digital Solutions: A Stainless Steel Producer Case Study

WA KALENGA Michel Kalenga University of Johannesburg, Johannesburg, South Africa 49
Artificial Neural Network used To predict the Material And Mass Balance In The Reduction Zone During High Carbong Ferromanganese Production

YENER Suayb Cagri Sakarya University, Sakarya, Turkey 49
An IoT-Based Electric Current Assisted Sintering System Control

KRAWCZYK Janusz AGH University of Krakow, Cracow, Poland, EU 50
Development of the "Implementation Doctorate" Program in Poland in the Field of Engineering and Technical Sciences on the Example of Topics Related to Metallic Materials

VÍTEK Martin University of Defence, Brno, Czech Republic, EU 50
Impact of Additive Manufacturing in Military Industry

POSTER SESSION A - F

POSTER SESSION A

KIM Su Ho POSCO Co.,Ltd, Gwangyang, Republic of Korea 52
Development of POS-TS Technology for the Purpose of Stabilizing Phosphorus Control and Omitting the Pre-work of Ultra Low Phosphorus Steel Production

KOVÁŘ Ladislav VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU 52
The Selected Design and Operating Parametres of Briquetting Presses and Lines for the Treatment of Scrap Metal as Charge to Steel Furnaces

PODOLSKA-LOSKA Angelika ArcelorMittal Poland / AGH University of Science and Technology, Dąbrowa Górnicza, Poland, EU 53
Kinetic and Thermodynamic Aspects in Mathematical Modeling of Hot Metal Desulfurization Process

RIGO David VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU 53
Heat Transfer in the Primary Cooling Zone of a Continuous Casting Machine for Steel

RŮŽIČKA Jan VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU 53
Thermal Properties of Shaft Furnaces for Experimental Archaeometallurgy

POSTER SESSION B

ABDALLAH Diha University of Tebessa, Tebessa, Algeria 54
The Effect of Tensile Creep Tests on the Mechanical Properties and Microstructural Evolution of Cold Drawn Electric Aluminum Wire

HAWRYLUK Marek Wrocław University of Science and Technology, Wrocław, Poland, EU 54
Preliminary Study on Developing a Material Model Based on a Mixture of Clay and Ceramic Flour Intended for Extruding Bands for Ceramic Roof Tiles to Establish a Numerical Model for the Load on Forming Tools

HYRCZA-MICHALSKA Monika Silesian University of Technology, Gliwice, Poland, EU 54
Innovation of the Bent Profile Production System at Adamietz Ltd. in Strzelce Opolskie by Integrating the Production Line of Reinforcement Elements of Modular Hall Structures for the Use of Modern Construction Materials

RADEV Rossen University of Ruse, Ruse, Bulgaria, EU 55
Preform Design at Axisymmetric Hot Closed-Die Forging Using Simple Moving Average Smoothing Technique

YOON Seung Chae Hyundai Steel Company, Dangjin, Republic of Korea 55
Analysis of Heat Transfer Effects on the Deformation Behavior of Aluminized 22MnB5 in Hot Stamping Process Using Data-driven

POSTER SESSION C

BURKET Tomáš Czech Technical University in Prague, Prague, Czech Republic, EU 56
Influence of Welding Force on Dynamic Resistance in Spot Welding

COJOCARU Vasile Dănut National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania, EU 56
Influence of Solution Treatment Temperature on the Microstructure and Mechanical Properties of UNS S32750 / F53 / 1.4410 Super Duplex Stainless Steel (SDSS) Alloy

HANNACHI Mohamed Tahar University Echahid Larbi Tebessi, Tebessa, Tebessa, Algeria 56
Contribution to study the flattening test of the Welded Tubes

HAWRYLUK Marek Wroclaw University of Science and Technology, Wroclaw, Poland, EU 57
Possibilities of Ensuring Stable and Optimal Operating Temperature of Forging Tools Using an Induction Heating System with the Possibility of Temperature Control and Recording

JABŁOŃSKA Magdalena Barbara Silesian University of Technology, Gliwice, Poland, EU 57
New Strategies of Nanobainite Structure Generate

KADGAYE Chetan IIT Roorkee, Roorkee, India 58
Role of Cerium on Intricacies of deformed state and Softening Kinetics of Low Carbon Steels

KALISZ Dorota AGH - University of Krakow, Cracow, Poland, EU 58
Simulation of the Mechanical Strength of the MM "Stahl 1018" Composite under Elevated Temperature Conditions in the "SolidWorks Simulation 2019" Program

KARMÁČEK Jakub Czech Technical University in Prague, Prague, Czech Republic, EU 58
Additive Manufacturing and Properties of Thin Walls Produced of Stainless Steel

KUBOŇ Zdeněk MATERIÁLOVÝ A METALURGICKÝ VÝZKUM s.r.o., Ostrava, Czech Republic, EU 58
Creep Cavitation Behaviour of P91/P92 Steels during Long-term Creep Tests

MARZEC Jan Wrocław University of Science and Technology, Wrocław, Poland, EU 59
Analysis of Selected Properties of Steel Used for Tools Forming a Band Assigned for the Production of Ceramic Roofing Tiles in the Aspect of Methods of Prolonging the Performcance Life

MATSUO Takashi Fukuoka University, Fukuoka, Japan 59
Investigation of Hydrogen Absorption in Ferritic/Pearlitic Spheroidal Graphite Cast Irons and Hydrogen-induced Degradation of Tensile Properties

ÖZSOY Murat Sakarya University, Sakarya, Turkey 59
Structural and Fatigue Analysis OF Cardan Shaft

PILSOVÁ Lucie UJP PRAHA a.s., Prague, Czech Republic, EU 60
Laboratory Exposure Loop for Simulation of Fossil Fuel Power Plant Superheater Operation Conditions

RADEV Rossen University of Ruse, Ruse, Bulgaria, EU 60
Mechanical Properties of Submerged Arc Weldments of High Strength Steel S960QL

WESOŁOWSKI Mateusz Silesian University of Technology, Katowice, Poland, EU 60
Properties and Microstructure of the 80MnSi8-6 Steel Deformed in WUMSI Simulator

POSTER SESSION D

BARTKOWSKA Aneta Poznan University of Technology, Poznań, Poland, EU 61
Microstructure, Microhardness and Fracture Toughness of Borochromized Layers Modified with Laser Beam

BERDIMURATOV Nurbol Sarsen Amanzholov East Kazakhstan University, Ust-Kamenogorsk, Kazakhstan 61
Electrolyte-Plasma Diffusion Boriding of 30CrMnSiA Steels

DOUBRAVA Marek Brno University of Technology, Brno, Czech Republic, EU 62
Development of a Methodology for Scratch Testing Cold Spray Coatings

KACPRZYŃSKA-GOŁACKA Joanna Łukasiewicz Institute for Sustainable Technologies, Radom, Poland, EU 62
Analysis of the Microstructure and Mechanical Properties of Oxide Coatings Produced by RF-MS and HIPIMS

PAZDEROVÁ Martina Centrum výzkumu Řež, Husinec - Řež, Czech Republic, EU 62
Study of the Behaviour of Innovative Materials in Liquid Metal Environment

PIASEK Artur — Łukasiewicz Research Network - Institute for Sustainable Technologies, Radom, Poland, EU 63
Influence of Process Parameters of the Ion Source on the Hydrophilic Properties of Polymeric Materials

PIETRASZEK Jacek — Cracow University of Technology, Cracow, Poland, EU 63
The Effect of Micro-machining with a Single-mode and Multi-mode Fiber Laser on the Surface of DLC Coatings

ROZUMOVÁ Lucia — Centrum výzkumu Řež s.r.o., Rez, Czech Republic, EU 63
Resistance of Al-based Coating in Liquid Metal Environment of Inconel 625 Alloy

SERBAN Nicolae — National University of Science and Technology POLITEHNICA Bucharest, Romania, EU 64
Impact of Peening Treatment Duration on Structural and Mechanical Behaviour of AMS 6265 Steel Surface Modified for Heavy-duty Aerospace Applications

SMOLIK Jerzy — Łukasiewicz Research Network - Institute for Sustainable Technologies, Radom, Poland, EU 64
Production of PN+WTiB Hybrid Layers to Improve the Durability of the Plastic Forming Tool

SPADŁO Sławomir — Mesko S.A., Skarżysko-Kamienna, Poland, EU 64
The Superficial Layer of Parts Alloyed by Electro-discharge Methods

ŠOMANOVÁ Pavlína — Brno University of Technology, Brno, Czech Republic, EU 65
The Importance of Current Mode on the Properties of PEO Coatings Deposited on the Surface of Powder Metallurgy-produced Mg Substrate

ŠOMANOVÁ Pavlína — Brno University of Technology, Brno, Czech Republic, EU 65
Corrosion Behaviour of AZ31 Magnesium Alloy in 0.15 M NaCl in the Presence of Malonic Acid

VONTOROVÁ Jiřina — University of Ostrava, Ostrava, Czech Republic, EU 66
Characteristics of Zn Coating Created by Hot-Dip Galvanizing on the Weld Joint of Structural Steel Kosmalt E300t Welded Using Mag Technology

POSTER SESSION E

AUNG Hein Thu — Defence Services Academy, Pyin Oo Lwin, Myanmar 66
Influence of Organic Additives on the Efficiency of Electroflotation Extraction of a Mixture of Metals

BAJTOŠOVÁ Lucia — Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic, EU 66
Ti Nanoparticles: Dislocation Identification and Structural Analysis

BARTÍKOVÁ Tereza — Research Centre Řež, s.r.o., Husinec-Řež, Czech Republic, EU 67
Testing of Corrosion Behavior of Inconel 738 at High Temperatures in Carbon Dioxide

ČERNIČKOVÁ Ivona — Slovak University of Technology in Bratislava, Trnava, Slovakia, EU 67
Investigation of SAC/Cu Solder Joints with Varied Addition of Ga

ČÍPEK Petr — Institute of Physics of Materials of the CAS, Brno, Czech Republic, EU 68
Quantum-mechanical Study of Phonon Contributions to Stability of Pb-Sn Alloys

DIEB Sae — National Institute for Materials Science, Japan, Tsukuba, Japan 68
Heat Treatment Optimization of Ni-Base alloy using Ensemble Monte Carlo Tree Search

ĎURIŠKA Libor Slovak University of Technology in Bratislava, Trnava, Slovakia, EU 68
Influence of Gallium Addition on Microstructure and Properties of SAC108 Lead-free Solders

EDRISI Arani Esmaeil Islamic Azad University, Najafabad, Rezvanshahr, Islamic Republic of Iran 69
TIG Welded AA6061 Alloy Utilizing Composite Filler Metal Containing TiO2: Microstructure and Mechanical Properties

FRIÁK Martin Institute of Physics of Materials of the CAS , Brno, Czech Republic, EU 69
Quantum-computing Study of the Electronic Structure of 3D Crystals: The Case Study of Tin

GALČÍKOVÁ Eliška Czech Technical University in Prague, Prague, Czech Republic, EU 70
Possibilities of Recycling Ti-6Al-4V and its Use in Additive Manufacturing

JUŘICA Jan VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU 70
The Effect of HIP on Mechanical and Utility Properties of Diamond Grinding Wheel

KOZA Kamil The Institute of Technology and Business in České Budějovice, Czech Republic, EU 71
Assessment of the Internal Quality of Zinc Castings During Mould Life Using Computed Tomography

KRÁLÍK Rostislav Charles University, Prague, Czech Republic, EU 71
Morphology of Ni-Ti Core-shell Nanoparticles

MALCHARCZIKOVÁ Jitka VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU 71
Lead-based Wastes from Metalworking Processes - The Possibility of Using

MANGALAGIU Ionel Alexandru Ioan Cuza University Of Iasi, Iasi, Romania, EU 72
Non-Ferrous Zinc Complexes with Quinoline-Sulfonamide Moiety for Biomedical Applications

MANGALAGIU Violeta Alexandru Ioan Cuza University of Iasi, CERNESIM, Iasi, Romania, EU 72
Palladium Non-Ferrous Materials for Biomedical Applications

NOVOTNÝ Adam Czech Technical University in Prague, Prague, Czech Republic, EU 72
Preparation and Basic Characteristics of Nickel Matrix Composite

NOWIŃSKA Katarzyna Silesian University of Technology, Gliwice, Poland, EU 73
Pyrometallurgical Recovery of Valuable Metals from Zn-Pb Slags

ONANKO Anatoliy Petrovich Kyiv National University, Kyiv, Ukraine 73
Indicatory Surface of Anelastic-elastic body of AgZn Alloy, Nanocomposites of Multiwalled Carbon Nanotubes and Polymers

ÖZSOY Neslihan Sakarya University, Sakarya, Turkey 74
Determination of Parameter Effects in the Drilling Process of Aluminum 5083-H111 Material by Response Surface Method

PETRÁŠ Roman Research Centre Řež, s.r.o., Husinec, Czech Republic, EU 74
Surface Degradation of Tungsten-based Materials for Plasma-facing Components after Thermal Loading

SCHILD Timon ESRIC - European Space Resources Innovation Centre, Esch-sur-Alzette, Luxembourg, EU 74
Production of metals on the Moon - Characterization of metals produced by electrolysis of lunar regolith in molten salts

STRAKOSOVA Angelina Institute of Physics of the CAS, Prague, Czech Republic, EU 75
Characterization of Metastable Ag-Cu Metal Matrix Composites Prepared by Spark Plasma Sintering from Core-shell Powders

SZURMAN Ivo VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU 75
Preparation of Composites Based on FeSi-NiAl by VIM

ROUPCOVÁ Pavla Institute of Physics of Materials of the CAS, Brno, Czech Republic, EU 76
Low-temperature Investigations of Phase Transformation in Pure Tin

POSTER SESSION F

BARBASZ Jakub Jerzy Haber Institute of Catalysis/ BIGA STAL Piotr Bicz Spółka Jawna, Cracow, Poland, EU 76
Innovative Metalworking System Based on Advanced Big Data Analysis

DWORNICKA Renata Cracow University of Technology, Cracow, Poland, EU 76
Analysis of Aluminum Can by Eco-costs and Life Cycle Assessments (LCA)

DWORNICKA Renata Cracow University of Technology, Cracow, Poland, EU 77
Model of Effective Quality Management for the Improvement of Casting Processes

SINELNIKOV Viktor Łukasiewicz Research Network, Cracow, Poland, EU 77
Development of New Refining Slag by Processed Industrial Waste

ŻAK Katarzyna AGH University of Science and Technology, Cracow, Poland, EU 78
Impact of the HPDC Machine Plunger Motion on Water Pump Casting Porosity and Microstructure - Analyse Supported by Numerical and Experimental Methods

ZIMON Grzegorz Rzeszow University of Technology, Rzeszów, Poland, EU 78
An Analysis of the Financial liquidity Management Strategy in Polish Aluminum Pressure Foundries during the Crisis