

PLENARY SESSION		7
BRÜNIG Michael	Bundeswehr University Munich, Neubiberg, Germany, EU	7
Biaxial Experiments on Damage and Fracture Behavior of Anisotropic Ductile Metals		
TROJANOVÁ Zuzanka	COMTES FHT a.s., Dobřany, Czech Republic, EU	7
Anisotropy of Mechanical and Physical Properties of Magnesium Alloys and Composites Prepared by SPD Methods		
SESSION A - ADVANCED MATERIAL ANALYSIS		8
PODANÝ Pavel	COMTES FHT a.s., Dobřany, Czech Republic, EU	8
Research and Development of TWIP Steel with Increased Corrosion Resistance		
VESELÁ Jana	Centrum výzkumu Řež, Pilsen, Czech Republic, EU	8
Verification of the Quality Cold Spray Protection of the Weld Root		
SAMAL Sneha	Institute of Physics of the CAS, Prague, Czech Republic, EU	8
Surface Feature of NiTi Coating on Stainless Steel		
PROSDÓCIMO Christoph	KEYENCE INTERNATIONAL (Belgium) NV/SA, Prague, Czech Republic, EU.....	8
What is New in Digital Microscopy?		
SESSION B - NON-FERROUS METALS		9
KRÁLÍK Rostislav	Charles University, Prague, Czech Republic, EU	9
Mechanical Properties of Processed Twin-roll Cast AlCuLi Based Alloys Aged without Pre-stretching		
STRÁSKÝ Josef	Charles University, Prague, Czech Republic, EU	9
High Throughput Characterization of Ti Alloys with a Low Stability of the Parent Beta Phase		
HÁJEK Michal	Charles University, Prague, Czech Republic, EU	9
Transformation of Primary Phases in Mold Cast and Twin-Roll Cast Al-Li Based Alloys		
RZEPA Sylwia	COMTES FHT a.s., Dobřany, Czech Republic, EU	10
Properties of DED Deposited Ti-6-4 Processed by SPD		
WEI Wei	Changzhou University, Changzhou, China	10
Microstructure and Properties of Cu-Cr-Zr Alloy Foils Cryogenically Processed by ECAP and Rolling		
SESSION C - STEEL PROCESSING AND PROPERTIES		10
HÁJEK Jiří	COMTES FHT a.s., Dobřany, Czech Republic, EU	10
A New Alloying Concept for Low-Density Steels		
ČÍŽKOVSKÝ Juda	AIR PRODUCTS Ltd., Prague, Czech Republic, EU	11
Technical Gases for Metal Processing		

MARCINIAK Szymon	NanoStal Ltd., Warsaw, Poland, EU	11
Practical Applications of Nanobainitic Steels		
KOTOUS Jakub	COMTES FHT a.s., Dobřany, Czech Republic, EU	11
Advanced Spheroidisation and their Benefits in Spring Steel 54SiCr6		
STUDECKÝ Tomáš	COMTES FHT, a.s., Dobřany, Czech Republic, EU	11
Boron Alloyed Stainless Steels for Short-Term Storage of Spent Nuclear Fuel		
SCHMIDOVA Eva	University of Pardubice, Czech Republic, EU	12
Microstructural Influence on Fracture Toughness of IF Steel and DP Steel		
KONOPIK Pavel	COMTES FHT a.s, Dobřany, Czech Republic, EU	12
Evaluation of Steel Degradation Using Small Samples		
NACHÁZELOVÁ Daniela	COMTES FHT a.s., Dobřany, Czech Republic, EU	12
Aspects of Austenitisation for the Bearing Steel Induction Quenching Design		
SESSION D - ADDITIVE MANUFACTURING		13
DŽUGAN Jan	COMTES FHT a.s., Dobřany, Czech Republic, EU	13
Local Properties Characterization of AM Deposited Materials		
HOUDKOVÁ Šárka	Research and Testing Institute Plzen Ltd., Pilsen, Czech Republic, EU	13
Twin Wire Arc Sprayed Coatings for Power Industry Applications		
NOZAR Martin	University of west Bohemia, Pilsen, Czech Republic, EU	13
Powder Materials Used in Metal Additive Manufacturing and its Safe Handling		
MELZER Daniel	COMTES FHT a.s., Dobřany, Czech Republic, EU	13
Influence of 316L/IN718 Multi-material Interface Orientation on the Mechanical Properties		
LI Ying	Comtes FHT a.s., Dobřany, Czech Republic, EU	14
High Temperature Mechanical Properties of In718 Fabricated by DED		
KUBOŠ David	“TMV SS” Ltd., Prague, Czech Republic, EU	14
Welding & Brazing, Additive Manufacturing and Material Testing by IRNDT		
DANIEL Matej	Czech Technical University in Prague, Prague, Czech Republic, EU.....	15
Biomimetic Surface Structure for Additive Manufacturing		
HALMEŠOVÁ Kristýna	COMTES FHT a.s., Dobřany, Czech Republic, EU	15
Thermal Properties of Multimaterial Structure Inconel 718/steel 316L Prepared by Directed Energy Deposition		
BRÁZDA Michal	COMTES FHT a.s., Dobřany, Czech Republic, EU	15
Simple and Multiple Material Layers as a Protected Edge on Forming and Trimming Tools		
BODNÁROVÁ Júlia	Czech Technical University in Prague, Prague, Czech Republic, EU.....	15
Development of Implants for Craniotomy by Additive Manufacturing		

RZEPA Sylwia	COMTES FHT a.s., Dobřany, Czech Republic, EU	16
AM Deposited Beta-Titanium Alloys		
SESSION E - MATERIAL MODELS AND MODELING OF TECHNOLOGICAL PROCESSES		16
BOUDA Tomáš	IDIADA CZ a.s., Hradec Králové, Czech Republic, EU	16
Calibration of Analytical Models of Plasticity		
STEKLÝ Jan	IDIADA CZ a.s., Hradec Králové, Czech Republic, EU	17
IDIADA Material Calibration		
IŻOWSKI Bartosz	Pratt & Whitney, Rzeszów, Poland, EU.....	17
Numerical Simulation of Gas Quenching for Pyrowear 53 Steel. Thermal, Mechanical and Metallurgical Analysis		
POLÁKOVÁ Ivana	COMTES FHT a.s., Dobřany, Czech Republic, EU	17
Prediction of Wires Behaviour Using DEFORM Software		
FEDORKO Mikuláš	COMTES FHT a.s., Dobřany, Czech Republic, EU	18
Investigation of the Behaviour of AHS Steels Using Experimental Measurement and FE Simulation		
POSTER SESSION		18
AMBROŽ Ondřej	Institute of Scientific Instruments of the CAS, Brno, Czech Republic, EU	18
Effects of Etchant Stirring on the Surface Quality of the Metallography Sample		
ANTOŠ Jakub	University of West Bohemia, Pilsen, Czech Republic, EU	19
Aluminium Oxide Grid Blasting: Grid Size and Blasting Pressure Influence on the Substrate Surface Grid Residue, Roughness and Adhesion Strength of Plasma Spray Ceramic Coating		
BAŃKOWSKI Damian	Kielce University of Technology, Kielce, Poland, EU.....	19
Influence of the Selected EDM Machining Parameters on the Geometrical Structure of the Surface of Alnico Alloys		
COUFAL Vladislav	University of West Bohemia, Pilsen, Czech Republic, EU	19
Comparison of Physical, Mechanical and Chemical Properties of Barrel Steel 32CrMoV10-12 and Nitriding Steel 31CrMoV9 after Nitriding in Gas		
DLOUHÁ Žaneta	Research and Testing Institute Plzen Ltd., Pilsen, Czech Republic, EU	20
Adhesion of Selected Thermally Sprayed Coatings on Additive Manufactured Maraging Steel		
DVOŘÁK Jiří	Institute of Physics of Materials of the CAS, Brno, Czech Republic, EU	20
Creep and Microstructure Stability of Different Purity Aluminium and its Alloys Processed by ECAP Method		
HRADIL David	COMTES FHT a.s., Dobřany, Czech Republic, EU	20
Carburizing with Subsequent Laser Surface Hardening of H13 Die Steel		
HRADIL David	COMTES FHT a.s., Dobřany, Czech Republic, EU	21
Permanent Direct Part Marking for Metal Parts Processed at High Temperature		

CHOCHOLOUŠEK Michal	Research Centre Rez, Husinec, Czech Republic, EU.....	21
Material Properties of Nickel Based Cold Spray by Means of Small Specimens		
JANDA Tomáš	University of West Bohemia, Pilsen, Czech Republic, EU	21
Effect of Processing Parameters in Preheated Tool for Press Hardening on Mechanical Properties of Modern High Strength Steel		
KASL Josef	Research and Testing Institute Plzen Ltd., Czech Republic, EU.....	21
Failure Analysis of a Cracked Tram Axle		
KOLLÁR Peter	Pavol Jozef Šafárik University in Košice, Košice, Slovakia, EU	22
Impact of NiFeMo Particle Powder Smoothing at Powder Metallurgy Preparation Process on Magnetic Properties of Resulting Compacts		
KOPELENT Michal	VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU.....	22
Effect of Thermal Treatment and Strain Rate on Superelastic and Mechanical Properties of NiTi Sheet		
KOUKOLÍKOVÁ Martina	COMTES FHT a.s., Dobřany, Czech Republic, EU	22
Functionally Graded Materials and their Properties in the Context of the Directed Energy Deposition Parameters		
MŁYNARCZYK Piotr	Kielce University of Technology, Kielce, Poland, EU.....	23
Accuracy of Shaping Spherical Surfaces by Means of EDM Processing		
OLEKŠÁKOVÁ Denisa	Technical University of Košice, Prešov, Slovakia, EU	23
Additive Technologies in the Preparation of Compacted Powder and Composite Magnetic Materials		
SALVETR Pavel	COMTES FHT a.s., Dobřany, Czech Republic, EU	23
Influence of Alloying Elements and Heat Treatment on Properties of SiCr Spring Steel		
SZKANDERA Pavel	VSB - Technical University of Ostrava, Ostrava, Czech Republic, EU.....	24
Increasing the Efficiency of the Forming Process by the DRECE Method		
ZÁLABSKÝ Jan	University of West Bohemia, RTI, Pilsen, Czech Republic, EU	24
3D Manufactured Maraging Steel and Its Heat Treatment		
CHMIELARZ Krzysztof	Warsaw University of Technology, Warsaw, Poland, EU.....	24
The Microstructure and Properties of Ovako 677L Steel after Innovative BQT Treatment		
NOTES		25