

CONFERENCE PROGRAMME

26th September 2022, Monday

12.00 – 14.00 Registration

12.30 – 14.30 **Lunch**

15.00 – 15.15 Opening ceremony

SESSION I

Chairs: Ludmil Drenchev/Paweł Zięba

15.15 – 15.45 *Recent developments in liquid metal engineering of advanced ultra-supercritical nickel alloys*
Robert M. Purgert, The Energy Industries of Ohio, Cleveland, USA

15.45 – 16.15 *Application of novel heat treatment technologies to improve performance of industrial Fe-based alloys*
Igor Tkachenko, Bulgarian Academy of Sciences, Institute of Metal Science, Equipment and Technologies with Center for Hydro- and Aerodynamics "Acad. A. Balevski", Bulgaria

16.15 – 16.30 *Fractographic analysis of two different plate designs used for orthopaedic trauma surgery*
Ivan Zderic, AO Research Institute Davos, Switzerland

16.30 – 16.45 **Coffee break**

16.45 – 17.00 *Experimental study of the hydrogen impact on the mechanical properties of pure iron*
Boris Yanachkov, Bulgarian Academy of Sciences, Institute of Metal Science, Equipment and Technologies with Center for Hydro- and Aerodynamics „Akad. A. Balevski”, Bulgaria

17.00 – 17.15 *Microstructural analysis of the casting defects in the low-pressure turbine blade*
Rafał Cygan, Consolidated Precision Products Corp., Rzeszów, Poland

19.00 – 22.00 **Dinner**

27th September 2022, Tuesday

7.30 – 9.00 Breakfast

10.30 – 12.00 **POSTER SESSION I**

13.00 – 14.00 **Lunch**

14.00 – 16.00 **POSTER SESSION II**

19.00 – 22.00 **Dinner**

28th September 2022, Wednesday

7.30 – 9.00 Breakfast

SESSION II

Chairs: Hristo Skulev/Jerzy J. Sobczak

10.00 – 10.15

Methodological aspects of testing the interaction between liquid magnesium and solid materials

Natalia Sobczak, Institute of Metallurgy and Materials Science, Polish Academy of Sciences

10.15 – 10.30

Microstructural characterization of aluminum – graphene nano-platelets – nano-sized Al_4C_3 composite

Y. Mourdjeva, Bulgarian Academy of Sciences, Institute of Metal Science, Equipment and Technologies with Center for Hydro- and Aerodynamics "Acad. A. Balevski", Bulgaria

10.30 – 11.00

Coffee break

11.00 – 11.30

Residual Stress Analysis in Plates Used for Orthopedic Trauma Surgery

Ivan Zderic, AO Research Institute Davos, Switzerland

11.30 – 11.45

Electrosynthesis of pure iron strip for use in mechanical tests: influence of cell hydrodynamics on the quality of the material

Krasimir Kolev, Bulgarian Academy of Sciences, Institute of Metal Science, Equipment and Technologies with Center for Hydro- and Aerodynamics "Acad. A. Balevski", Bulgaria

13.00 – 14.30

Lunch

19.00 – 22.00

Dinner