

Update: 12.09.2024

Conference Program

25.09.2024	
12.00 - 13.00	Participant registration
13.00 - 14.30	Opening of the conference, plenary session I
Chairmans: doc. Ing. Branislav Buľko, PhD., doc. Ing. Karel Gryc, MBA, Ph.D., prof. dr hab. inż. Krzysztof Nowacki	
13.00 – 13.15	Mariola Saternus, Silesian University of Technology Conference opening by guarantee of the conference
13.15 – 13.30	Adam Kowalski, Director of the Museum of Metallurgy Conference opening by co-organizer of the conference – Museum of Metallurgy
13.30 – 13.45	Jacek Pieprzyca, Silesian University of Technology A global brand from Chorzów - from the history of Huta Królewska (Kościuszko)
13.45 – 14.15	Piotr Drzystek, Director of Decarbonization ArcelorMittal Poland Challenges and barriers of Steelmaking Industry Decarbonization in context of ArcelorMittal Poland
14.15-14.30	Przemysław Sztuczkowski – CEO of Cognor S.A. Organic development of the COGNOR S.A. group
14.30 - 15.00	Coffee break
15.00 - 16.30	Plenary session II
Chairmans: prof. dr hab. inż. Janusz Adamiec, Ing. Bc. Martina Hrubovčáková, PhD., doc. Ing. Petr Lichý, Ph.D.	
15.00 – 15.15	Petr Lichý – Head of Department of Metallurgical Technologies, VSB The vision of development, education and research of Faculty of Materials Science and Technology, VSB – Technical University of Ostrava
15.15 – 15.30	Branislav Buľko, Director of Institute of Metallurgy Transformation of Faculty of Materials, Metallurgy and Recycling, TUKE
15.30 – 15.45	Krzysztof Nowacki, Dean of Faculty of Materials Engineering Faculty of Materials Engineering, Silesian University of Technology – yesterday, today, tomorrow
15.45 – 16.00	Karel Gryc, Vice-Rector for Creative Activities, Institute of Technology and Business in České Budějovice Direction in metallurgy and related fields at VŠTE
16.00 – 16.15	Mirosław Karbowniczek, AGH, Kraków The role of ladle slag in the production of high-quality steel
16.15 – 16.30	Marek Warzecha, Rector of the Częstochowa University of Technology The future of metallurgy in the context of a changing environment (Vision of metallurgy in context of Częstochowa University of Technology)
16.30 - 18.00	Visiting the museum
18.00 – 19.30	Dinner

26.09.2024

Chairmans: dr hab. inż. Adam Cwudziński, prof. PCz; prof. dr hab. inż. Mirosław Karbowniczek, doc. Ing. Ladislav Socha, MBA, Ph.D.

09.00 – 9.15	Marek Berliński, ArcelorMittal Poland Modelling of thermo-chemical processes in a metallurgical reactor using advanced automation and information systems
09.15 – 9.30	Mariola Kądziołka-Gawel, University of Silesia Thermal decomposition kinetics of siderite - Mössbauer spectroscopy study
09.30 – 09.45	Piotr Migas, Mikołaj Bernasowski, AGH Kraków Hydrogen reduction of iron oxides in the liquid slag phase
09.45 – 10.00	Józef Schwietz - Stilmar Częstochowa Use of sound level and active power fluctuations of the steel arc furnace in the slag foaming process
10.00 – 10.15	Radosław Zybała - Łukasiewicz Research Network - Non-Ferrous Metals Institute The process of reducing copper slag in an electric furnace and the possibilities of its modeling
10.15 – 10.30	Wojciech Węgrzyn – „Heraeus Electro-Nite Polska” Semi-continuous, Optical Temperature measurement in EAF QuiK-Spec - direct analysis of preparation free steel sample
10.30 – 10.45	Łukasz Kortyka, Łukasiewicz Research Network - Non-Ferrous Metals Institute Decopperizing of metallurgical slag using printed circuit boards as a reducer
10.45 – 11.00	Łukasz Myćka, Łukasiewicz Research Network - Non-Ferrous Metals Institute Rapeseed cake as an alternative biomass reducer of slags from non-ferrous metallurgy
11.00 – 11.15	Marlena Wróbel, Jarosław Przybyła – ArcelorMittal Poland Development and validation of a computer-aided gas management model with the possibility of optimization at ArcelorMittal Poland SA - Branch in Dąbrowa Górnicza in the field of technical gas management
11.15 – 11.30	Peter Šmigura, Alena Tazka – Železiarne Podbrezová a.s. Influence of casting on two strands in three strand tundish on length of transient areas
11.30 - 12.00	Coffee break

Chairmans: doc. Ing. Peter Demeter, PhD., dr hab. inż. Piotr Migas, prof. AGH, doc. Ing. Silvie Brožová, Ph.D.

12.00 – 12.15	Marek Berliński, ArcelorMittal Poland Development of an intelligent cooling stove as part of the cooling system of a blast furnace
12.15 – 12.30	Pradeep Padhamnath – AGH, Kraków Theoretical investigation of the impact of impurities in recycled silicon used for the production of ferrosilicon

12.30 – 12.45	Anna Konstanciak, Jakub of Paradyż Academy, Gorzów Wielkopolski The analysis of no-cost solutions for toxic waste reduction at the Commercial Chemistry Plant
12.45 – 13.00	Janusz Adamiec, Silesian University of Technology Pilot robotic line for the production of welded frames and trailer bodies supported by a dedicated IT system monitoring the welding process and supporting the creation of welding technologies in terms of reducing welding deformations and production times of manufactured components
13.00 – 13.15	Joanna Wyciślik-Sośnierz, Łukasiewicz Research Network - Upper Silesian Institute of Technology Morphology of dust generated during arc welding of corrosion-resistant steels
13.15 – 13.30	Michał Urbańczyk, Łukasiewicz Research Network - Upper Silesian Institute of Technology Method of connecting two-layer (composite) pipes using laser technology
13.30 – 13.45	Tomasz Suponik, Silesian University of Technology Recycling used electronic equipment in line with the principles of circular economy and sustainable production
13.45 – 14.00	Angelika Podolska-Loska, AGH Kraków/ArcelorMittal Poland Application of artificial intelligence methods to identify parameters of a physicochemical model for the pig iron desulfurization process
14.00 – 14.15	Dorota Goryl, Progres Ekotech, s.r.o. Products and scientific research of Progres Ekotech, s.r.o.
14.15 – 14.30	Zygmunt Szulc, Explomet Galka, Szulc Limited partnership "In the beginning there was an explosion" - Explomet - production, research and development of explosive plating technology
14.30 - 15.30	Dinner
15.30 - 17.00	Poster session Conference summary
19.00 – 24.00	Banquet at the hotel: Hotel Diament Arsenal Palace Katowice Chorzów, ul. Paderewskiego 35 Awards for the best presentations and the best posters
27.09.2024	
10.15 – 12.00	Industrial walk through the Silesian Museum "Byzuch at Ferdynand's" + permanent exhibition "The Light of History. Upper Silesia throughout history" - guided tour of the Silesian Museum in Katowice, ul. Tadeusza Dobrowolskiego 1, 40-205 Katowice

Poster session:

Chairmans: dr hab. inż. Mikołaj Bernasowski, prof. AGH; Director Adam Kowalski, PhD., dr hab. inż. Anna Konstanciak, prof. AJP

- P1 – **Marek Warzecha, Częstochowa University of Technology:** Industrial investigations of S355 steel grade homogenization at the 100 t LF station
- P2 – **Ladislav Socha, VSTE, Ceske Budejovice:** Comparative analysis of mechanical properties of mould parts for High-Pressure Die Casting of aluminium alloys
- P3 – **Jana Svizelova, VSTE, Ceske Budejovice:** Numerical simulation of multiphase flow in a physical model of FDU refining unit
- P4 – **Branislav Bulko, TUKE, Kosice:** Digital Twins of Steelmaking Processes
- P5 – **Artur Hutny, Częstochowa University of Technology:** Analysis of the possibility of using recycled slag liquefaction substitutes in steelmaking processes
- P6 – **Grzegorz Siwiec, Silesian University of Technology:** Reduction of lead sulfate using fine-grained carbon-bearing materials
- P7 – **Piotr Gębara, Częstochowa University of Technology:** Magnetocaloric properties of La_{0.9}Pr_{0.1}Fe_{11.2}Co_{0.7}Si_{1.1} compound through direct measurements under cyclic magnetic fields up to 30 Hz
- P8 – **Karolina Kutynia, Częstochowa University of Technology:** Critical Behavior Studies in the Vicinity of the Curie Temperature in the MnCoGe Alloy
- P9 – **Beata Pośpiech, Częstochowa University of Technology:** Latest trends in recycling used lithium-ion batteries
- P10 – **Silvie Brozova, VSB, Ostrava:** Multimetallc high temperature materials as secondary raw material
- P11 – **Ewa Kolczyk, Łukasiewicz Research Network, IMN:** Modeling the movement of concentrate particles in a flash furnace
- P12 – **Stanisław Gil, Wojciech Bialik, Sławomir Kozłowski, Silesian University of Technology:** Comparison of the operating conditions of the three-electrode and six-electrode furnace in the production process of the FeSi75+Ca modifier
- P13 – **Joanna Willner, Krzywińska Natalia, Silesian University of Technology:** Recovery of indium from electronic devices - leaching supported with ozone
- P14 – **Katarzyna Łyczkowska, Janusz Adamiec, Silesian University of Technology:** Characteristics of joining WE43 magnesium alloy by friction stir welding technology.
- P15 – **Tomasz Merder, Silesian University of Technology:** Modelling research of slot-type porous plug with a new design
- P16 - **Robert Świerszcz, Zbigniew Czapka, Jacek Szczerba, Ilona Jastrzębska, Zakłady Magnezytowe Ropczyce SA:** Synthesis of carbides in Al₂O₃-C refractories used in ladle slide gate systems and their influence on mechanical properties
- P17 - **Wojciech Bialik, Stanisław Gil, Sławomir Kozłowski, Silesian University of Technology:** The influence of significant parameters of the resistance-arc furnace on the technical and economic indicators of silicon alloy smelting
- P18 – **Karel Gryc, VSTE, Ceske Budejovice:** Development of mathematical model to control and predict final hydrogen content in liquid metal after vacuum treatment
- P19 – **Bernadeta Gajda, Jarosław Reterski, Politechnika Częstochowska:** Improving the attractiveness of waste steel cans to steel mills by removing tin in the leaching process
- P20 – **Slavomír HUBATKA, Branislav Bul'ko, Peter Demeter, Martina Hrubovčaková, TUKE, Kosice:** The future of steel: Carbon border adjustment mechanisms and its impact by 2034