

Session Program

13-17 Sept 2021

**EUROPEAN CONGRESS AND EXHIBITION ON
ADVANCED MATERIALS AND PROCESSES -
EUROMAT 2021**

C5_Liquid metal processing

Virtual

Monday 13 September

11:00

C5_Liquid metal processing: C5_1_Liquid Metal Processing

Session | Location: Room 9

11:00–11:40

Simulation of slag-matte/metal equilibria for complex and low-grade raw materials (Keynote)

Speaker

Prof. Pekka Taskinen

11:40–12:00

Possibilities of complex experimental study of thermophysical and thermodynamic properties of selected Fe-C-Cr, Fe-C-Ni and Fe-C-Cr-Ni based alloys

Speaker

Prof. Bedřich Smetana

12:00–12:20

Experimental investigations and computational thermodynamics of the Fe-C-P system

Speaker

Mr Michael Bernhard

12:20–12:40

Advanced inclusion analytics for the detailed characterization of micro and sub-micro multiphase particles

Speaker

Prof. Susanne Michelic

12:40

14:00

C5_Liquid metal processing: C5_2_Slags in metallurgical Processes

Session | Location: Room 9

14:00–14:20

Thermophysical properties of iron and steelmaking slags (Highlight)

Speaker

Mr Gert Bartzsch

14:20–14:40

Thermodynamic and kinetic modelling of the dissolution process of lime particles in BOF slags

Speaker

Mr Daniel Marian Ogris

14:40–15:00

New insights into the state of steelmaking slags and their dephosphorization potential based on a computational thermodynamics approach

Speaker

Mrs Sabrine Khadhraoui

15:00–15:20

Physico-chemical Properties of a new Calcium Aluminate based Mould Powder for Aluminium Alloyed Steels and Comparison with a commercial Calcium Silicate Mould Powder**Speaker**

Mr Matthias Rohmann

15:20–15:40

Electrical conductivities of slags and their effect on electromechanical dimensioning of SAF**Speaker**

Dr Roland König

15:40

16:00

C5_Liquid metal processing: C5_3_Numerical simulation of high temperature metallurgical processes

Session | Location: Room 9

16:00–16:20

Modelling of aluminium melt degassing in ladle using inert gas blowing through rotating impeller (Highlight)**Speaker**

Mrs Markéta Tkadlečková

16:20–16:40

Process Metallurgy Modelling and Its Application in ICME for Accelerated Development and Upscaling of Steels**Speaker**

Dr Martin Walbrühl

16:40–17:00

Modeling of the aluminum refining process in a batch reactor**Speaker**

Mariola Saternus

17:00–17:20

Simulation of the reactions in the ladle during the BOF steel tapping**Speaker**

Dali You

17:20–17:40

Submerged gas blowing and droplet settling modelling in copper matte smelting processes**Speaker**

Prof. Ari Jokilaakso

17:40

Tuesday 14 September

09:50

C5_Liquid metal processing: C5_4_Decarbonization of metallurgical processes and phase transformation in steels

Session | Location: Room 9

09:50–10:10

Silicon alloy production by aluminothermic reduction of silica-based secondary raw materials using pure aluminium and aluminum dross as reductants (Highlight)

Speaker

Mr Harald Philipson

10:10–10:30

Steelmakers at the crossroad to Green Steel: „Hydrogen meets future steelmaking“

Speaker

Mr Michael Andreas Zarl

10:30–10:50

The influence of copper evaporation on the surface tension of low copper bearing Fe-Cu binary alloys

Speaker

Wei Xingwen

10:50–11:10

Study of the temperatures of phase transformations of steels and their applicability in the technology of steel casting

Speaker

Michaela Strouhalová

11:10–11:30

Characterization of hypo-peritectic steels by experimental methods and computational thermodynamics: An Overview

Speaker

Dr Peter Presoly

11:30