



INTERNATIONAL WROUGHT COPPER COUNCIL

IWCC TECHNICAL SEMINAR OSAKA 2023

MELTING, REFINING & CASTING

PAPERS LIST AS AT 1 FEBRUARY 2023

Session Topic: Introduction: The Copper Industry in Japan

1. Overview of the Copper Industry in Japan
Speaker: Hiroshi Kuwayama, Japan Copper & Brass Association (JCBA)

Session Topic: Cathode, Scrap and the Circular Economy

2. Automatic sorting technology in the copper recycling industry based on X-Ray Fluorescence (XRF)
Speaker: Thomas Diesenreiter, Redwave
3. Real time analysis of copper alloys using handheld X-Ray fluorescence spectrometry
Speaker: Takamichi Nakayman, Thermo-Fisher
4. Digital twin casting technology – digitalisation in foundry and industrial IoT
Speaker: Toshimitsu Okane, Professor of Institute of Technologists, Japan
5. Global challenges in copper recycling: insights from material flow analysis, developments in technology and industry issues
Speaker: Luis Tercero Espinoza, Fraunhofer Institute
6. Scrap refining: Latest technological developments
Speaker: Dimitri Cordublas, Continuus-Properti
7. An industry-led Lead-Free Brass Initiative and Roadmap
Speaker: Mark Loveitt, IWCC

Session Topic: Melting

8. Decarbonization of wire rod plants using innovative and energy efficient melting solutions
Speaker: Markus Ecker, SMS
9. Various applications for copper melting and casting by CO₂ neutral induction furnaces
Speaker: Sebastian Esser, INDUGA
10. Designing of flux composition in the copper alloy melting process using neural network and thermodynamic computation
Speaker: Itaru Hasegawa, YKK Corporation
11. A synergistic approach for the flue gas treatment of a copper shaft melting furnace
Speaker: Nikos Marinakis, Halcor

Session Topic: Casting

12. Fundamentals of UPCASTs energy saving strategy
Speaker: Juan-Carlos Bodington, Upcast Oy
13. Sustainable semi-finished copper production - on the way to decarbonisation using continuous strip casting-rolling technology
Speaker: Hendrik Busch, KME Mansfeld
14. Energy consumption of different types of casting furnaces in daily operation and other influences of energy consumption during horizontal continuous casting
Speaker: Christian Wertli, Alfred Wertli AG
15. Measurement and control of the height of molten copper and copper alloys
Speaker: Stefan Theobald, Wieland
16. Latest innovations in copper casting technologies
Speaker: Carsten Bretz, SMS Group
17. Microstructure analysis on unidirectional solidification of copper alloys
Speaker: Yuki Muto, JX Nippon Mining & Metals Corporation
18. Development of measuring thermal resistance from solidified shell to mold in VCC or SCR process.
Speaker: Hirokazu Yoshida, Furukawa Electric Co., Ltd.
19. Recent developments in continuous casting of copper alloys
Speaker: Brian Frame, Rautomead Ltd

Session Topic: Consumables

20. Graphite grades suitable for the copper industry and their availability
Speaker: Tomoo Tokuno, Toyo Tanso