

Session Program

13-17 Sept 2021

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

***C4_Powder technologies to obtain high
performance materials***

Virtual

Friday 17 September

09:50

C4_Powder technologies to obtain high performance materials: C4_1_High Performance and Tool materials

Session | Location: Room 8

09:50–10:30

A new approach to developing high entropy alloys by powder metallurgy: the suitability of using commodity powders (Keynote)

Speaker

Mr Sivagnana Venkatesh Kumaran

10:30–10:50

Microstructure of WC-based cemented carbides with Alternative Binders: the advantages of using modelling tools

Speaker

Dr Raquel de Oro Calderon

10:50–11:10

Influence of manufacturing sequences on the surface integrity and wear behavior of cemented carbide punching tools

Speaker

Alexander Ott

11:10–11:30

Cutting performance of cermet and cemented carbide TiAlN PVD coated inserts in turning hardened steel

Speaker

Prof. Konstantinos-Dionysios Bouzakis

11:30

11:50

C4_Powder technologies to obtain high performance materials: C4_2_High Performance Materials

Session | Location: Room 8

11:50–12:10

W-Ni-Co ternary system thermodynamic description at intermediate temperatures

Speaker

Mr Nicolas Bouliez

12:10–12:30

Electric Current Assisted Sintering processes for the production of CoCrFeNi-Al_{1.8}Cu_{0.5} high entropy alloy.

Speaker

Dr Juan Cornide

12:30–12:50

Microstructural design strategies of ODS ferritic stainless steels for extreme environment requirements

Speaker

Prof. Mónica Campos

12:50–13:10

Carbon nanotubes influence on the strengthening and deformation behaviour of metal matrix nanocomposites**Speaker**

Ms Iris Carneiro

13:10–13:30

The effect of cryogenic mechanical alloying on the dissolution of yttria in an oxide dispersion strengthened FeCrMnNiCo High-Entropy Alloy**Speaker**

Michael Mayer

13:30

14:40

C4_Powder technologies to obtain high performance materials: C4_3_PM Steels**Session** | **Location:** Room 8

14:40–15:00

TRIP behaviour of Mn alloyed sintered steels as a function of the carbon content**Speaker**

Prof. Herbert Danninger

15:00–15:20

Enhanced distribution of alloying elements in PM steels by the use of tailored transient liquid phases**Speaker**

Mr Stefan Geroldinger

15:20–15:40

Sintering and microstructural analysis of Cr-prealloyed PM steels containing nickel**Speaker**

Mr Anok Babu Nagaram

15:40–16:00

Supersolidus sintering of PM carbon and low alloy steels for precision parts**Speaker**

Prof. Christian Gierl-Mayer

16:00–16:20

Mechanical and microstructural characterization of Ni-free powder steel**Speaker**

Prof. Alessandro Morri

16:20

16:40

C4_Powder technologies to obtain high performance materials: C4_4_Innovative Consolidation and Characterization Techniques**Session** | **Location:** Room 8

16:40–17:00

X-ray nanotomography investigation of the sintering of ceramic powder systems**Speaker**

Mr Aatreya Manjulagiri Venkatesh

17:00–17:20

Spark Plasma Sintering of graphite/molybdenum nanocomposites for heat sinks components

Speaker

Dr M. Suárez

17:20–17:40

Liquid- Powder-Solid: A Full-Spectrum Analysis of Additive Manufacturing Raw Materials Throughout the Manufacturing Cycle

Speaker

Dr Denis Schütz

17:40–18:00

Processability of a hybrid POM-based feedstock for printing and injection moulding technologies

Speaker

Mr Juan Alfonso Naranjo

18:00–18:20

Characterization of size distribution and morphology for metal powders used in additive manufacturing

Speaker

Daniel Cardenas del Rio

18:20