

FEMS EUROMAT23

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FEMS EUROMAT is the most important international congress in materials science and technology in Europe. It continues a successful congress series promoting the transfer of knowledge and the exchange of experience between academia and industry. **Extended submission deadline: 15 March 2023**

H: Materials for Circularity and Sustainability

The scope of the topic "Materials for Circularity and Sustainability" are materials science challenges and solutions for sustainable development to stop the dramatic increase of the demand for material resources. For instance, in the last 40 years, global material extraction increased about three times to more than 90 billion tonnes. According to a historical trend, this extraction would rise in the next 40 years up to more than 180 billion tonnes. If a scenario towards sustainability development is assumed - with circulating of materials (e.g., by re-use, re-manufacturing, and re-cycling) - 25 % less increase can be expected. [UN Environment, International Resource Panel, Global Resource Outlook 2019].

There are numerous opportunities to improve material circulation, like research activities for standard materials in mono-material fluxes (e.g., steel, aluminum, glass, and paper) or for complex products like buildings or electronic products. Carbon-based materials (bio-based and plastics) need other technologies to circulate than inorganic materials.

Area Coordinator



Prof. Dr. Gesa Beck
SRH Berlin University Applied Science



Dr. Artur Braun
Swiss Federal Laboratories for Materials Sci...

H01: FÄLLT AUS

H02: Financing and Business Models for Circular Economy

Maja Jelic (ABCircular GmbH), Dr. Andre Wolf (Centrum für Europäische Politik)

H03: Recycling of Technology Materials and Composites from WEEE

Dr.-Ing. Mertol Gökelma (Izmir Institute of Technology), Dr. Barbara Güttler (Leibniz-Institut für Verbundwerkstoffe), Dr. Karsten Wambach (Bifa Umweltinstitut GmbH)

H04: FÄLLT AUS

H05: Carbon-Capture Technologies, Polymeric and Bio-Based and Biodegradable Materials in Circular Economy

PD Dr. rer. nat. habil. Satyanarayana Narra (University of Rostock), Dr. Giovanni Perotto (Istituto Italiano di Tecnologia (IIT)), Dr. Madina Shamsuyeva (Leibniz Universität Hannover)

H06: Processing and Properties of Recovered Metals and Alloys from Contaminated Recycling Fractions

Prof. Dr.-Ing. habil. Ulrich Krupp (RWTH Aachen University), Dr. Blanka Lenczowski (Airbus Defence and Space GmbH), Prof. Dr. Stefan Pogatscher (Montanuniversität Leoben), Prof. Dr.-Ing. Axel von Hehl (University of Siegen)

H07: Digitalization for Circularity

Dr. Emanuel Ionescu (Fraunhofer Research Institution IWKS), Dr. Moritz to Baben (GTT-Technologies)

H08: Nanomaterials in Products and Processes under Circular Considerations

Prof. Dr. Selma Erat (Mersin University), Prof. Dr. Maurizio Fermeglia (University of Trieste), Dr. Carsten Gellermann (Fraunhofer Institute ISC and FNT)

H09: Materials Circularity for Sustainability

Prof. Dr.-Ing. Frank Balle (University of Freiburg), Dr. Kiran Gulia (University of Wolverhampton)

H10: Fundamental Science of Sustainable Metallurgy

Alexander Roald Michael Gramlich (RWTH Aachen University), Dr.-Ing. Yan Ma (MPI für Eisenforschung GmbH), Prof. Dr. Johannes Schenk (Montanuniversität Leoben), Univ.-Prof. Dr.-Ing. habil. Wenwen Song (University of Kassel)

