

# Preface



The S2P International Conferences are dedicated to the science and technology of semi-solid processing of metal alloys and composites. Since the discovery of the specific flow behavior of metals in a semi-solid state during the early seventies, this fascinating technology has experienced a dynamic and turbulent development history which has led to a whole family of new production processes, new equipment, and industrial applications. To fully exploit the technical and economic potential of flow behaviour, it is of great necessity to further improve material and process modelling as well as process control. The S2P International Conferences have contributed to achieving this goal by providing a forum for scientists to share common knowledge and develop a common sense on fundamental topics and industrial requirements.

The first S2P Conference was held in 1990 at the Ecole des Mines de Paris in Sophia Antipolis, France. Other conferences followed in 1992, Cambridge, MA, USA; 1994, Tokyo, Japan; 1996, Sheffield, England; 1998, Denver, CO, USA; 2000, Torino, Italy; 2002, Tsukuba, Japan; 2004, Limassol, Cyprus; 2006, Busan, South Korea; 2008, Aachen and Liege, Germany and Belgium; 2010, Beijing, China; 2012, Cape Town, South Africa; 2014, Muscat, Sultanate of Oman; 2016, Salt Lake City, USA and 2018, Shenzhen, China.

The 16<sup>th</sup> S2P Conference was organized by Montanuniversität Leoben from 28<sup>th</sup> – 30<sup>th</sup> September 2021, in Leoben, Austria. The conference was previously planned for 28<sup>th</sup> – 30<sup>th</sup> September 2020, but due to the COVID-19 sanitary restriction, it was delayed to 2021, one whole year later.

To ensure a high quality of the conference contributions, the submitted papers have been individually reviewed. We definitely want to thank both the reviewers and the authors for their valuable works and efforts to achieve the best possible results. The conference concentrates on advancing fundamental knowledge and development of materials and industrial processes for semi-solid manufacturing of high-performance metal components. The conference and proceedings are organized in three distinct sections: Material Development and Characterisation; Rheology, Modelling and Simulation; Process Development and Industrial Application.

A special thanks to all who were involved in organizing the conference (i.e., Prof. Peter Schumacher) and editing this proceeding (i.e., Dr. Ahmed Rassili).

Jiehua Li  
Conference chairman

# Committees

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Jiehua Li

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