

Foreword



This special edition of Metallurgical and Materials Transactions A contains 49 papers which were presented at the 3rd European Conference on Superalloys ('Eurosuperalloys 2018') which took place at the University of Oxford, during the period 9-13th September 2018. The Organizing Committee received close to 200 extended abstracts for consideration for this conference. Of these, 55 were selected on the basis of their scientific excellence, technological relevance, and pertinence to the field, to move forward for the writing of a full manuscript. The writing period took place over late 2017/early 2018 and culminated in all papers being peer-reviewed fully and consistent with the journal's well-established procedures.

Superalloys remain as the class of structural materials that are unsurpassed in their suitability for many high-temperature applications in the aerospace and power generation sectors. Many new applications are emerging—for example in the automobile and chemical engineering sectors. The conference highlighted the importance of the alloy design, processing, property, and behavioral studies that have always been a hallmark of work in this field. A particular highlight of the conference was a session on additive manufacturing, with which the conference opened on the first day.

The Organizing Committee thank all those who worked hard to prepare manuscripts which are highly original; the published proceedings will act as a statement of the impressive work which is being carried out worldwide. We believe that this process contributed to a scientific meeting of the very highest standard which was enjoyed by all.

Finally, the Organizing Committee chose to honor Dr Jean-Yves Guédou of Safran Group as the dedicatee for Eurosuperalloys 2018. Jean-Yves Guédou is world-renowned, particularly as a specialist in powder metallurgy Ni-based alloys for disk applications. In this area, he contributed to the industrialization of N18 alloy for engine disk applications and he was the main leader for the N19 alloy development project. Furthermore, Jean-Yves participated in the development and introduction of Ni-based single crystal superalloys in SAFRAN aero-engines. In the context of the Eurosuperalloys conferences, it should be widely appreciated that Jean-Yves worked tirelessly with Martin Heilmaier to organize the first Eurosuperalloys conference, held in Germany in 2010. He then acted as the chairman of the second conference held in France in 2014. This conference held in Oxford builds on his vision and legacy.

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