

Session Program

17-21 Jun 2019



5th International Conference on Advances in Solidification Processes (ICASP-5) 5th International Symposium on Cutting Edge of Computer Simulation of Solidification, Casting and Refining (CSSCR-5)

Nucleation and grain refinement

IMLAUER HOTEL PITTER SALZBURG
Rainerstraße 6, 5020 Salzburg, Austria

Tuesday 18 June

10:30

Nucleation and grain refinement: #1

Session | **Location:** IMLAUER HOTEL PITTER SALZBURG, P1, Rainerstraße 6, 5020 Salzburg, Austria

10:30–10:50

RECENT ADVANCES IN UNDERSTANDING THE EARLY STAGES OF SOLIDIFICATION

Speaker

Zhongyun Fan

10:50–11:10

ELEMENTAL ADSORPTION AT THE LIQUID/OXIDE INTERFACE IN ALUMINIUM ALLOYS

Speaker

Feng Wang

11:10–11:30

GRAIN REFINEMENTS OF MAGNESIUM ALLOYS INOCULATED BY ADDITIONS OF EXTERNAL SiC PARTICLES

Speaker

Yuanding Huang

11:30–11:50

GRAIN INITIATION BEHAVIOUR AND ITS EFFECT ON GRAIN REFINEMENT

Speaker

Feng Gao

12:10

13:30

Nucleation and grain refinement: #2

Session | **Location:** IMLAUER HOTEL PITTER SALZBURG, P1, Rainerstraße 6, 5020 Salzburg, Austria

13:30–14:00

THE INFLUENCE OF SHORT-RANGE ORDER IN THE LIQUID ON SOLIDIFICATION MORPHOLOGIES

Speaker

Michel Rappaz

Location

IMLAUER HOTEL PITTER SALZBURG, P1

14:00–14:20

INFLUENCE OF MINOR ADDITIONS ON ICOSAHERAL SHORT-RANGE ORDER (ISRO) AND ITS CONSEQUENCES ON NUCLEATION AND SOLIDIFICATION GROWTH KINETICS IN FCC ALLOYS

Speaker

Julien Zollinger

Location

IMLAUER HOTEL PITTER SALZBURG, P1, Rainerstraße 6, 5020 Salzburg, Austria

14:20–14:40

Si POISONING OF TiB₂ BASED GRAIN REFINERS FOR Al-ALLOYS

Speaker

Yun Wang

Location

IMLAUER HOTEL PITTER SALZBURG, P1, Rainerstraße 6, 5020 Salzburg, Austria

14:40–15:00

PHASE FIELD CRYSTAL AND MOLECULAR DYNAMIC MODELING OF NUCLEATION DURING SOLIDIFICATION ON THE ATOMIC SCALE**Speaker**

Jincheng Wang

Location

IMLAUER HOTEL PITTER SALZBURG, P1, Rainerstraße 6, 5020 Salzburg, Austria

15:00–15:20

PRENUCLEATION ON OXIDE PARTICLES IN Al- AND Mg-ALLOYS FROM AB INITIO MOLECULAR DYNAMICS SIMULATIONS**Speaker**

Changming Fang

Location

IMLAUER HOTEL PITTER SALZBURG, P1, Rainerstraße 6, 5020 Salzburg, Austria

15:20–15:40

HETEROGENEOUS NUCLEATION BY STRUCTURAL TEMPLATING**Speaker**

Hua Men

Location

IMLAUER HOTEL PITTER SALZBURG, P1, Rainerstraße 6, 5020 Salzburg, Austria

15:40

16:10

Nucleation and grain refinement: #3**Session** | **Location:** IMLAUER HOTEL PITTER SALZBURG, P1, Rainerstraße 6, 5020 Salzburg, Austria

16:10–16:30

REVEALING THE TEMPERATURE GRADIENT INFLUENCE ON THE HETEROGENEOUS NUCLEATION BEHAVIOR OF GRAINS IN INOCULATED Al ALLOYS**Speakers**

Lars Arnberg, Yanjun Li

16:30–16:50

NUMERICAL SIMULATION OF WAVE-LIKE NUCLEATION EVENTS**Speaker**

David StJohn

16:50–17:10

TUNING MECHANISM FOR HETEROGENEOUS NUCLEATION OF METALLIC CRYSTALS**Speaker**

Mingxu Xia

17:10–17:30

REVEALING THE NUCLEATION AND GROWTH BEHAVIOR OF PRIMARY Si DURING SOLIDIFICATION OF HYPEREUTECTIC Al-Si ALLOYS**Speaker**

Yijiang Xu

17:30–17:50

MECHANISMS OF TiAl ALLOYS ISOMORPHIC INOCULATION FROM CRYO-MILLED Ti-AL-Nb POWDERS

17:50

Speaker
Julien Zollinger