Thermo-Calc Software

Computational Thermodynamics and Kinetics Seminar

Welcome to the Thermo-Calc Software User Group Meeting in Aachen.

PROGRAM:

Wednesday March 29

19:30 –	***Informal get-together for drinks at Restaurant Magellan, Pontstraße 78, 52062 Aachen***

Thursday March 30

9:00 – 9:15	***Registration with coffee and snacks***
9:15 – 9:25	**Welcome** *Nicholas Grundy, Thermo-Calc Software AB and Markus Apel, Access e.V. Aachen.*
9:25 – 9:50	**The misuse of colors and other graphical issues in phase diagram representations** *Silvana Tuminello, German Space Agency – DLR, Germany*
9:50 – 10:15	**Phase names – Why is it so complicated?** *Bengt Hallstedt, RWTH Aachen, Germany*
10:15 – 10:45	***Coffee break***
10:45 – 11:10	**Thermodynamic & kinetic simulations for design of hardenable Cu- and Fe-alloys with TC-Python** *Valérie Friedmann, Fraunhofer IWM, Freiburg, Germany*
11:10 – 11:35	**Numerical alloy design by coupling CALPHAD and optimization** *Benjamin Wahlmann, Friedrich-Alexander Uni Erlangen-Nürnberg, Germany*
11:35 – 12:00	**An ICME approach to design secondary phase particles for performance improvement** *Savya Sachi, Questek Europe, Sweden*
12:00 – 13:30	***Lunch***
13:30 – 13:55	**Development and Process Optimization of Titanium Alloys in Additive Manufacturing: A Thermodynamic Approach** *Valérie Goettgens, University Innsbruck, Austria*
13:55 – 14:20	**Effect of Nb and N in the phase stability of 316L produced by powder based Additive Manufacturing** *Daniel Cardenas del Rio, Technical University of Denmark - DTU*
14:20 – 14:45	**Thermo-Calc's Additive Manufacturing Module: FEM solidification simulation code using Material Properties from Scheil Simulation** *Thermo-Calc Software AB, Sweden*
14:45 – 15:10	***Coffee break***
15:10 – 15:35	**3D simulation of Ni redistribution in the Ni/yttria-stabilized zirconia electrode of solid oxide cell using the multi-phase-field approach** *Yijing Shang and Ming Chen, Technical University of Denmark - DTU*
15:35 – 16:00	**Phase field simulation of precipitates formation during steel solidification** *Begoña Santillana, Tata Steel Europe, Holland*

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16:00 – 16:30	**MICRESS V7.2: New Software features and application examples** *Markus Apel, Access e.V. Aachen, Germany*
16:30 – 17:00	**Overview of recent developments in Thermo-Calc, DICTRA and TC-PRISMA and outlook** *Thermo-Calc Software AB*
18:30 – late	***Social gathering and dinner at Restaurant Pippin - die kleine Gastronomie*** ***Hubertusstraße 43, 52064 Aachen***

Friday March 31

09:00 – 09:25	**Calphad for Physicists, Calphad for Engineers, Calphad for Materials Scientist: the case of ordering in BCC** *Suzana G. Fries, Ruhr Uni Bochum, Germany*
09:25 – 09:50	**CALPHAD -Based Description of Kinetics in High Entropy Alloys** *Ahmadreza Riyahi Khorasgani, (Ruhr Uni Bochum, Germany)*
09:50 – 10:15	**Database development at Thermo-Calc: TCMG7** *Mehdi Noori, Thermo-Calc Software AB, Sweden*
10:15 – 10:40	**A comparison of Ca-rich Laves phase in Mg-Al-Ca alloy between Thermo-Calc prediction and TEM and APT experimental verification** *Jiehua Li, Montan University Leoben, Austria*
10:40 – 10:55	***Coffee break***
10:55 – 11:20	**Thermodynamics applied to iron reduction, combustion and copper removal from molten iron** *Alisson Kwiatkowski da Silva, Max-Planck-Intitut für Eisenforschung, Germany*
11:20 – 11:45	**Dolime impact on the liquid fraction and viscosity in an EAF slag** *Camille Douce, Lhoist Belgium*
11:45 – 12:10	**Introducing time dependence to Thermo-Calc calculations: Steelmaking and -refining simulations with the Process Metallurgy Module (PMM)** *Nicholas Grundy, Thermo-Calc Software, Stockholm, Sweden*
12:10 – 12:20	**Concluding remarks, introduction UGM 2024 in Leoben**
12:20 – 13:30	***Lunch***
13:30 – 14:30	**Lab Tour ACCESS e.V.**

LOCATION: Giesserei-Institute (3rd floor), Intzestraße 5, RWTH D-52072 Aachen, Germany

REGISTRATION: Please note that the registration date for the User Group Meeting in Aachen has passed. But you are welcome to send an email (nicholas@thermocalc.com) and we will check if a spot is available for you.

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