Thermo-Calc ▲ Software

Computational Thermodynamics and Kinetics Seminar

Welcome to the Thermo-Calc Software user group meeting Hosted by Royce at the University of Sheffield, at the Sir Robert Hadfield Building **on June 11-12, 2024.**

PROGRAM, Day 1, June 11:

09.30 – 10.15 *Registration with refreshments*

10.15 – 10.30 **Welcome and Introduction**
Carl-Magnus Lancelot, Thermo-Calc Software

10.30 – 11.10 **News from Thermo-Calc Software: Thermo-Calc, DICTRA, TC-PRISMA and databases**
Carl-Magnus Lancelot, Thermo-Calc Software

11.10 – 11.35 **Design of oxidation resistant Nb-Si alloys aided by computational thermodynamics**
Claire Utton, University of Sheffield

11.35 – 12.05 *Short break with snacks and drinks*

12.05 – 12.30 **Using DICTRA to simulate external oxidation for steel tubes in high temperature processing applications**
Megan Kendall, Swansea University Bay Campus

12.30 – 12.50 **Simulation of solidification and phase formation in the Mg-rich corner of Mg-Ca-Zn alloys**
Yanheng Xie, University of Sheffield

12.50 – 13.10 **Assessing the Printability of Steels with Computational Thermodynamics and Machine Learning**
Raymond Wong, Imperial College London

13.10 – 14.30 *Lunch in the Turner Museum*

14.30 – 14.50 **Optimisation of advanced steel design for fusion energy applications**
David Bowden, UK Atomic Energy Agency

14.50 – 15.10 **Design of new boron-strengthened reduced activation ferritic-martensitic steels for fusion**
Jack Haley, UK Atomic Energy Agency

15.10 – 15.30 **The Preliminary research of NbTiZr-X (X=Al, Mo, Ta, W, Cr) of RCCAs through Thermo-Calc**
Yu-Hsuan Lee, University of Sheffield

15.30 – 16.00 *Short break with snacks and drinks*

16.00 – 16.25 **Mean-field model for hydride evolution within Zircaloys**
Connor Cladingboel, University of Sheffield

16.25 – 17.00 **Demonstration of Additive Manufacturing module, with the new Keyhole model and printability maps**
Magnus Anderson, Thermo-Calc Software

19.30 **Dinner**
Location TBA

For more information about Thermo-Calc, please visit:

www.thermocalc.com

PROGRAM, Day 2, June 12:

09.00 – 9.30   *Registration with refreshments*

9.30 – 9.40   **Day 2 Welcome and Introduction**
Carl-Magnus Lancelot, Thermo-Calc Software

9.40 – 10.00   **Designing new ultra-radiopure, high-strength electroformed CuCr alloys, for rare event searches**
Dimitra Spathara, University of Birmingham

10.00 – 10.20   **Phase Prediction and Validation of AlSiFeCrCoNi Multi Principal Element Alloys**
Thon Thongklom, University of Sheffield

10.20 – 10.40   **Application of Thermo-Calc with machine learning towards the design of carbon reinforced high entropy alloys for metal forming tooling applications**
Joshua Berry, University of Sheffield

10.40 – 11.05   **Thermo-Calc calculations of gas turbine engine mineral deposit melting temperatures**
Jacob Elms, University of Manchester, Earth and Environmental Sciences

11.05 – 11.30   *Short break with snacks and drinks*

11.30 – 11.55   **Ordering regimes in Zirconium Carbides**
Theresa Davey, Bangor University, Wales

11.55 – 12.20   **Experimental investigation and thermodynamic modelling of WC-40Fe-20Co-40Ni**
Tomas Soria Biurrun, CEIT, Spain

12.20 – 12.45   **Enhancing industrial materials using ICME**
Hoda Dini, Questek Europe

12.45 – 13.00   **Closing remarks / Wrap Up**

13.00 – 14.30   *Lunch in the Turner Museum*

14.30 – 16.00   *Tour of the Royce Centre*

REGISTRATION:
Please send your registration for the seminar via E-Mail before May 25 with your full name and address to:
Thermo-Calc Software AB, info@thermocalc.com. Please indicate if any special requirements for food are needed, such as vegetarian or non-dairy.

Seminar fee: 100 GBP per day, waived for presenters.
Dinner fee: 50 GBP

LOCATION: Sir Robert Hadfield Building, University of Sheffield

Turner Museum of Glass and Lecture room LT21

https://www.sheffield.ac.uk/turner-museum/visitor-information

WELCOME!

For more information about Thermo-Calc, please visit:

www.thermocalc.com