

TMS 2018



BROADEN YOUR EXPERTISE: REGISTER FOR A PROFESSIONAL DEVELOPMENT EVENT AT TMS2018

INTRODUCTION TO ALLOY THERMODYNAMICS: THE CALPHAD APPROACH AND BEYOND COURSE

SUNDAY, MARCH 11, 2018 • 8:30 A.M. TO NOON

CALPHAD (Calculation of Phase Diagrams) is one of the most powerful techniques for Materials Genome and Integrated Computational Materials Engineering (ICME) modeling. The development of the CALPHAD-based method has taken place so quickly that it is not described adequately in conventional textbooks, nor is it covered properly in the majority of existing undergraduate or graduate degree courses in materials science. This workshop will highlight the developments and application of the CALPHAD method in four distinct topic areas:

1. Overview of the CALPHAD methodology
2. Density functional theory calculations and CALPHAD approach for alloy thermodynamics and diffusion
3. Advanced experimental techniques including high throughput experiments, for materials database development
4. Case studies: examples of the use of CALPHAD for a range of materials applications.

INSTRUCTORS

Shuanglin Chen, CompuTherm LCC

Ursula Kattner, National Institute of Standards and Technology

Paul Mason, Thermo-Calc Software Inc.

Richard Otis, Jet Propulsion Laboratory

Sun-Li Shang, Pennsylvania State University

Wei Xiong, University of Pittsburgh

Ji-Cheng Zhao, The Ohio State University

SPONSORED BY

TMS Alloy Phases Committee; Integrated Computational Materials Engineering Committee

REGISTRATION FEES

	Advanced	On-Site
Member	\$325	\$375
Non-member	\$375	\$425
Student	\$175	\$225

Learn more at: www.tms.org/TMS2018