

## 第 86 構造材料ゼミ / The 86th Structural Materials Seminar

日時 平成 30 年 04 月 04 日 水曜日 13:30-14:30  
場所 国立研究開発法人 物質・材料研究機構  
千現地区 先進構造材料研究棟 5階 Conference room  
(つくば市千現 1-2-1)  
司会 大出真知子

題目: 3rd generation CALPHAD databases

演者: Prof. Ingo Steinbach

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要旨:

CALPHAD thermodynamic and kinetic databases are of key importance for applied materials research as well as a key requisite for simulation of microstructure evolution e.g. by phase-field methods. A new approach is presented to establish 3rd generation databases using a new set of interpolation functions, statistical analysis and automated assessment (1). The talk will shortly outline the development strategy, summarize the status of development at ICAMS together with international partners.

In the second part of the talk, actual development to establish a diffusion database for high entropy alloys (HEA) will be presented.

(1) I. Roslyakova, B. Sundman, H. Dette, L. Zhang, I. Steinbach; Modeling of Gibbs energies of pure elements down to 0 K using segmented regression, CALPHAD Journal, 55, 165-180, (2016)

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