Thermochemical Database (TDB) Project course – 7th edition: Thermodynamic data collection and assessment

23 September 2023 – Nantes, France

About the course

The 7th edition of the annual NEA TDB course on the topic of thermodynamic data collection and assessment will take place as a one-day, in-person event on 23rd September 2023 in Nantes, France, back to back with the [Migration Conference](.).

This event is sponsored by the Nuclear Energy Agency (NEA) TDB project, and it is designed to familiarise scientists with current NEA TDB activities and standards, provide an overview of data collection and analysis techniques, and work through some real system examples to demonstrate the critical evaluation and data assessment process. Retaining high scientific standards for the collection, interpretation, critical review and application of thermodynamic data is a key goal of the NEA TDB, and will help assure that a strong scientific basis for the safety case is maintained to support international nuclear waste management options.

Target audience and venue

This one-day, in-person training course is ideally designed for graduate students, young scientists (typically postdocs) or scientists who are new to the nuclear chemistry field and its application to nuclear waste management (repository science as well as environmental remediation/containment of near-surface contamination sites). It also further targets scientists interested in broader environmental applications of the NEA TDB and the collection and application of thermodynamic data.

Practical information

Instructors: Xavier Gaona (KIT-INE, Germany), Don Reed (LANL, USA), Marcus Altmaier (KIT-INE, Germany), Lara Duro (Amphos21, Spain), Pascal Reiller (CEA, France), Jesus S. Martinez (OECD/NEA, France)

Date and time: Saturday, 23rd September 2023, 09:00 – 18:00 (CET / Paris time)

Location: Mercure Nantes Centre Grand Hôtel, 4 Rue du Couedic, 44000 Nantes, France

Preliminary programme (Details in Annex 1)

Topic 1: Overview of the NEA and NEA TDB activities and projects
Topic 2: Overview of guidelines for the collection and analysis of thermodynamic data
Topic 3: Critical evaluation and assessment exercise
Topic 4: Other thermodynamic databases and implementer's perspective
Topic 5: Thermodynamic data in the context of uranium mining

Registration

To register, please visit [the following page](.).
The registration deadline: 6th September 2023.
Registration fee: 65 EUR

Contact

For updated information on the workshop or any questions please contact us at:
tdb-course-2023@oecd-nea.org

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Thermodynamic data collection and assessment

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Mercure Nantes Centre - Grand Hôtel, Nantes, France

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Time	**Topic**
9:00 – 9:20	Opening remarks and introductions (All)
9:20 – 9:40	Perspectives - international updates (Reed)
9:40 – 10:00	NEA-TDB - Background and historical viewpoint (Martinez)
10:00 - 10:15	*Coffee Break (included)*
10:15 – 10:45	NEA-TDB reference material and processes (Reed)
10:45 – 12:00	NEA-TDB guidelines for ionic strength corrections. Practical SIT Exercise (Gaona)
12:00 – 13:00	*Lunch (included)*
13:00 – 14:00	Critical review criteria within NEA-TDB. A detailed walkthrough of two examples: stand-alone paper and review in the context of several papers (Gaona)
14:00 – 15:15	Experimental approaches and design (Altmaier)
15:15 - 15:30	*Coffee Break (included)*
15:30 – 16:30	Thermodynamic data in the context of uranium mining (Reiller)
16:30 – 17:30	Thermodynamic databases for radionuclides building on NEA-TDB. Implementer Perspectives: the NEA-TDB Data in Predicting Repository Performance (Duro)
17:30 – 18:00	Wrap-up and feedback questionnaire (Martinez)