Dedicated to:

….students (MSc, PhD), post docs or professionals involved in the study of solution equilibria and the analysis of relevant thermodynamic parameters.

The well-known computer science motto of "garbage-in garbage-out" perfectly holds also for chemical thermodynamics.

Researchers working in this field need high-quality data to obtain high-quality results. Analogously, any subject dealing with chemical thermodynamics needs high-quality data and models to ensure their robustness for high-quality applications.

SOLvE in an **online** training school which will help people dealing with solution equilibria in promoting good laboratory practices. Experienced professors will provide focused theoretical background, practical aspects and tips for high-quality experimental data collection and clues for robust data analysis through different models and protocols (ranging from Excel to more specialised software). The main experimental approaches for solution equilibria will be presented and discussed. Applications of each technique to cutting-edge research will be also highlighted.

www.cost-nectar.eu

Organized by:

Chairs:

Tarita Biver	University of Pisa (IT)
Sofia Gama	Univ Bialystok (PL) / Univ Lisbon (PT)
Demetrio Milea	University of Messina (IT)
Carmelo Sgarlata	University of Catania (IT)

NECTAR CA18202 Supervision:

Enrique García-España University of Valencia (ES)
TS Coordinator

Important info:

Deadline: 7th July 2023

Registration fee: 30 €
15 NECTAR CA18202 free slots available

Registration fee includes:
- Topic lectures
- Training material

Min number of participants required: 10

Contact – Info – Registration:

solve@cost-nectar.eu

3rd ISMEC-NECTAR Training School

on the

Determination, Analysis and Use of Thermodynamic Data

Advances in **SOL**ution **E**quilibria

July 24th-26th, 2023

International Group for the Thermodynamics of Complexes

NECTAR
NETWORK FOR EQUILIBRIA AND CHEMICAL THERMODYNAMICS ADVANCED RESEARCH

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cost
EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

The school contains both

- ✓ **THEORY & PRACTICE**
- ✓ **FOCUSED TOPICS**

Two opening lectures will introduce the framework for a correct approach to chemical speciation in solution and multivariate tools.

Then, the school will focus on the theoretical background and practical information for the study of solution equilibria by using:

- **spectroscopic/spectrometric techniques**
- **electrochemical techniques**
- **calorimetric techniques**

Practical examples will show how to extract a robust binding constant value from the experiments.
Two plenary lectures will present further points of view on solution equilibria.

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PROGRAMME/MAIN TOPICS (CET time)

July 24th	July 25th	July 26th
9:00-9:20 **Opening**	**9:10-10:10** **T. Biver** How to design spectroscopic experiments	**9:10-10:10** **C. Sgarlata** How to design calorimetric experiments
9:20-10:50 **S. Berto** Speciation and use of databases	**10:10-11:20** Spectroscopy: a practical test	**10:10-11:20** Calorimetry: a practical test
Coffee Break	*Coffee Break*	
11:10-12:40 **R. Biesuz** Multivariate tools	**11:40-12:40** **P. Rapta** Spectro-electrochemistry	**11:40-12:40** **A. Paulo** Metal-Based Radio-pharmaceuticals
12:40-13:00 **Q&A**	**12:40-13:00** **Q&A**	**12:40-13:00** **Q&A/Closing**
Lunch Break		
15:00-16:20 **S. Gama** How to design NMR experiments	**15:00-16:20** **D. Milea** How to design potentiometric experiments	
Coffee Break		
16:40-18:00 NMR: a practical test	**16:40-18:00** Potentiometry: a practical test	
18:00-18:30 **Q&A**	**18:00-18:30** **Q&A**	

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