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News

Training and Careers

Physical Sciences | Thermodynamics/Molecular modeling

Thanks to the support of the Association de Formation pour l'Industrie (AFI), IFP School has just launched a new teaching and research chair dedicated to the Electrolyte Thermodynamics and entitled "EleTher".

This Chair, which has a-three-year term, is held by Jean-Charles de Hemptinne, a lecturer and a researcher at IFP School's Processes for Energy and Chemicals Center and Supervisor of the research-oriented Master's program in Catalysis and Processes.

This new Chair focuses on the application of thermodynamic tools to improve the efficiency of recycling processes. It aims to develop and promote research on the thermodynamics properties of aqueous waste containing metals, acids and bases, as well as organic solvents for the circular economy.

The research will focus on:

- proposing a method for analyzing experimental data;
- understanding the interactions between species in a solution containing electrolytes;
- developing macroscopic tools (equations of state) for use in process simulations;
- evaluating the sensibility of simulations with respect to the data used.

> “*We are very proud of the launch of this new Chair, which will contribute to the development of an excellence hub in the field of electrolyte thermodynamics*” notes Christine Travers, Dean of IFP School and President of the Chair’s Steering Committee.

> “*This Chair will reinforce the training modules on thermodynamics given as part of the programs of the Processes for Energy and Chemicals Center and will make it possible to raise awareness amongst our engineering students of the challenges of recycling processes*” she continues.

The first research projects have already started with a thesis entitled: "Analysis of electrolyte solvation within the primitive equation of state framework", which focuses on the prediction of high concentrations of ionic species or high temperatures. A second thesis on organic electrolyte molecules will be launched at the end of 2021.

> Find out more (IFP School website)

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The application period is extended
New Chair on Electrolyte Thermodynamics
07 April 2021

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