



## ***Symposium H : 2nd Hydrogen Storage Alloys Workshop***

### **Scope of the Symposium**

Safe and effective hydrogen storage is one of the key challenges for a broader use of hydrogen as an energy carrier. Hydrogen storage in metal hydrides may offer an interesting solution, since very high volumetric capacities can be attained when hydrogen is confined in the inner structure of an appropriate metallic alloy. In this workshop, the main aspects related to the structure, synthesis, processing, properties and applications of metal hydrides will be covered. A special emphasis is given for advanced processing and characterization of novel materials such as nanocomposites, severely deformed alloys, and high entropy alloys. The proposed program aims to provide a comprehensive overview of these interesting class of functional materials, which have a central role in the utilization hydrogen as an energy carrier but also could be used in other applications such as heat storage and battery electrodes.

### **Abstracts will be solicited in (but not limited to) the following areas**

- *New Alloys and Composites with Enhanced Hydrogen Storage Properties*
- *Advanced Processing of Hydrogen Storage Materials*
- *Hydrogen Storage in Metal-Polymer Nanocomposite Materials*
- *Low Cost Alloys for Hydrogen Storage*
- *High Entropy Alloys for Hydrogen Storage*
- *Practical Applications of Hydrogen Storage Materials*

### **Tentative list of invited speakers (To be confirmed)**

**Michel Latroche** (*Institut de Chimie et des Matériaux Paris-Est - FRANCE*) **Gabriel Omar Meyer** (*Centro Atómico Bariloche - ARGENTINA*) **Walter Jos Botta Filho** (*Universidade Federal de So Carlos - BRAZIL*) **Michael Felderhoff** (*Max-Planck-Institut für Kohlenforschung - Germany*) **Kaveh Edalati** (*Kyushu University - Japan*) **Dilson dos Santos Silva** (*Universidade Federal de Rio de Janeiro - Brazil*) **Alain Pasturel** (*SIMaP - CNRS - Grenoble INP - UGA - France*) **Luiz Antonio Pessan** (*Universidade Federal de So Carlos - Brazil*) **Santiago J. A. Figueroa** (*Laboratório Nacional de Luz Síncrotron (LNLS), Centro Nacional de Pesquisa em Energia e Materiais (CNPEM) - Brazil*).

### **Symposium Organizers**

**Daniel Rodrigo Leiva** (*Universidade Federal de So Carlos*) **Guilherme Zepon** (*Universidade Federal de So Carlos*) **Jacques Huot** (*Université du Québec Trois-Rivières*).

<https://sbpmat.org.br/18encontro>

**XVIII Brazil MRS Meeting**