

## WORKSHOP “TEACHING ENTROPY WITH FUN”

### Abstract

The benefit of chemical thermodynamics is beyond question but the field is reputed to be difficult to learn. Students often regard it as very abstract and remote from everyday life. In this context, the quantity entropy seems to be especially difficult to grasp. Therefore, we propose to introduce this quantity directly by a phenomenological description (a kind of “wanted poster”) complemented by a direct measuring procedure. This approach is consequently linked to everyday experience; especially, the motivating power of fascinating but nevertheless easily and safely realizable demonstration experiments is used.

The workshop will start with a short theoretical introduction into the topic. Afterwards, the attendees will have the opportunity to perform experiments that are particularly suitable to illustrate different aspects of entropy at various stations according to the rotation model. One of the experiments involves the popular toy “pop-pop boat” that represents a quite simple heat engine. But it is also very interesting to know how, for example, a fire piston or a simple rubber band can equip students with more knowledge about entropy.

