

## M4.5 Mini symposium: **Materials testing under extreme conditions**

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In certain applications, materials and structures are subjected to very low or very high temperatures, physico-chemical interactions (which may include irradiation), intense electromagnetic fields, *etc.* These conditions, which can be described as extreme, make experimental studies complex. Test benches are not available off-the-shelf, and it is generally necessary to modify or develop suitable measuring equipment. Finally, as the problems are multiphysical, the number of parameters to be taken into account increases, making exhaustive parametric studies impossible.

In this symposium, we are interested in all studies relating to all classes of materials under extreme conditions as a whole. This means that the following points will be addressed:

- The development of experiments or measurement methods
- Experiment/simulation correlation
- Identification of laws or loading problems
- Data analysis using statistical methods, AI, etc.
- The link with multiphysics behaviour laws