

TARGET FABRICATIONS STATUS FOR LASER MEGAJOULE EXPERIMENTS

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The Megajoule Laser at CEA CESTA near Bordeaux in France is one of the world's most powerful working lasers. To achieve physics experiments on LMJ, laser targets are developed and fabricated at CEA Valduc.

This talk proposes an overview of the processes and results obtained in laser target development and fabrication. Today, the CEA target department is involved in:

- Material synthesis: low density materials (foams, aerogels), metallic and organic films (PVD, GDP, galvanometry...).
- Microtechnologies: precision and ultra-precision tooling, laser machining, polishing, capsules fabrication.
- Characterizations compatible of the high quality required for laser targets.
- Assemblies of all the target elements.

All these technologies are strongly linked and used in order to achieve target fabrication. It is necessary to develop material synthesis, but it is also very important to be able to machine the required shapes. The state of the art and recent advances in target fabrication will be exposed.