Abstract for IFSA2017
Application of additive manufacturing for laser target fabrication

Laurent JEANNOT [1], Johan ANDRE [1], Grégory DEDEMO[1], Cédric CHICANNE[1] and Marc THEOBALD[1]

1) Cea Valduc, Is Sur Tille, France

E-mail: laurent.jeannot@cea.fr

In order to produce laser targets for laser plasma experiments, the target department of CEA operates in different fields of production techniques and develops methods able to be consistent with the target requirements in terms of quality, delay and cost. Additive manufacturing becomes an important manufacturing process to match these aims.

In the short term, stereo lithography seems to be the most promising technology for laser target range applications. It is a quick and, in most of the cases, accurate solution to target assembly issues: 3D printed, vacuum or clamping, micro tools can combined complex shape and minimized tools size. As well, this technology, in addition to conventional methods (machining, PVD coating), allows producing target elements.

This poster highlights assembly improvements obtained by 3D printed micro-tools as well as the first test of a full laser target fabrication by additive manufacturing.

Preferred method of presentation: poster