Problems of Monitoring of ultradispersed low-density layers for ITF targets

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The problems of precision monitoring metal ultradispersed powder layers (MSPL), as well as low-density polymer layers with inclusion of MSPL are discussed. The noted layers are used as constructional covers in ITF.

Such designs of the target are widely used in many tasks, and among them are as follows: more effective conversion of laser radiation into the x-ray one [1], the compression stability, and an increase of the neuron yield in the experiments.

To control the discussed layers we have used the methods of micro-radiography, x-ray tomography with image processing program, and the scanning electronic microscopy.

In the development, fabrication and measuring of such layers we have overcome some severe difficulties connected with micro-dimension and small amounts of the matters used [2,3,4]. The mentioned techniques are also discussed from the viewpoint of realization of target mass production.

References

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