Plain and Brominated low-density steady parylene as Diagnostic and construction target layer for the research experiments in the context of icf

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Parylene is a high steady plastic (C8H8) generally used as a micron protective layer of internal surfaces in microcircuits, and may contain Br: brominated parylene (C8H7Br) [1].

In such a form Br enters the plastic formula and may be used as a diagnostic agent in the reaction 79Br(n,2n)78Br in the ICF targets [2].

In one of the experiments on the preparation of thin wall billets for cylindrical targets we succeeded in producing a porous low density (1/5–1/10 of the solid C8H7Br) material, and this is of interest for the experimental targets [3, 4].

Low density brominated parylene possesses sufficient strength and flexibility, it is thermostable and can be used as a construction material for the target layers. Low density layers in the ICF targets are promising, and have a number of advantages [5].

In the course of the work the authors have succeeded in overcoming the problems associated with complex preparation procedures and the conduction of the reaction in a limited vacuum volume with the sublimation temperature 850oC, the deposition at -1400C, and further long pumping.

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