

On application of wobbler in experiments with cylindrical targets

Monday, 22 October 2018 15:40 (150)

For the experiments with irradiation of cylindrical targets by intense ion beams which are actual in some fundamental and applied researches (laboratory astrophysics, medicine, etc) it is necessary to shape the irradiating beam with hollow geometry. Among the various methods of hollow beam formation the wobbling is of interest. The deflecting plates or RF-cavities with phase shift of electromagnetic fields create the fast beam rotation. In the case of the suitable relation between the velocity of the rotation and the characteristic velocity of the processes inside the target substance arising from the irradiation (for instance, the velocity of the front motion of the shock wave caused by the target implosion) the beam may be considered as hollow one. In this report some problems of the method are discussed, resulting in the asymmetry of the irradiation. The calculation results are presented.

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Session Classification : Poster session and coffee-buffet

Track Classification : Facilities and advanced detector technologies