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Generation of Plasmas from Multiple Targets by Laser Ion Source for TIARA Ion Implanter

The 400 kV ion implanter in Takasaki Ion Accelerators for Advanced Radiation Application (TIARA) is mainly used for research and developments in the field of material science, and it is necessary to produce beams of various ion species. Therefore, we are developing a laser ion source for an ion implanter on an offline test bench to produce beams of various ion species and to switch quickly between the ion species to be produced. The laser ion source is possible to generate plasma directly from any solid sample by irradiating a focused pulsed laser beam onto a solid target sample, and by attaching multiple target samples of different materials to a target stage, it is possible to switch the ion species produced by simply moving the stage. In this presentation, we report the results of plasma generation experiments using multiple targets with different mass numbers.

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Yes

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