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Plasma Immersion Ion Implantation for Fusion PFC Testing

Tuesday 20 June 2023 15:45 (15 minutes)

Plasma Immersion Ion Implantation (PIII) is a powerful high-fluence ion implantation technique in which the target to be implanted is immersed in a plasma containing the desired ion species. PIII finds a wide variety of applications in semiconductor processing. A more recent area of application for our PIII technology is treatment of candidate materials for Plasma Facing Components (PFCs) intended for use in plasma fusion devices such as the ITER tokamak. PIII can be used to simulate the high fluence ion bombardment encountered in plasma fusion devices, and therefore provides a useful tool for PFC testing. This talk will discuss various fundamental aspects of PIII which are relevant to the PFC testing problem, and present recent results in this area.

Keyword-1

plasma

Keyword-2

ion implantation

Keyword-3

fusion

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