

SUPPLEMENT

Dopant concentration analysis of ALD thin films in 3D structures by ToF-SIMS

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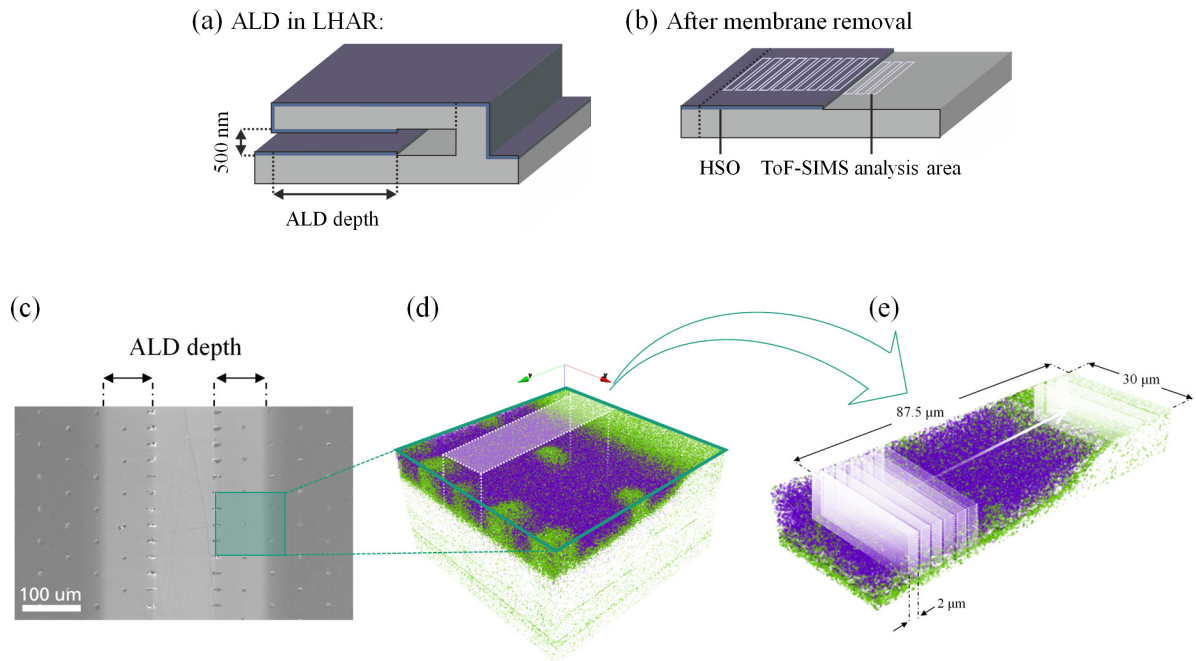


Figure (a) ALD in the LHAR test structure; (b) After membrane removal, the diffusion depth of the ALD process can be examined directly by ToF-SIMS; (c) SEM image of PillarHall after membrane removal. The diffusion depth of the ALD process can be examined directly by ToF-SIMS; (d) Volumetric view of the elemental distribution of over a 350 μm field of view from deposited region; (e) Defined ROI with dimension of 2 μm by 30 μm to integrate total counts of interested area.