

# About the importance of purge time in molecular layer deposition of alucone films

Hardik Jain<sup>a,b</sup>, Paul Poedt<sup>a,b\*</sup>

<sup>a</sup>TNO/Holst Centre, 5656 AE Eindhoven, Netherlands

<sup>b</sup>Department of Applied Physics, Eindhoven University of Technology, 5600 MB Eindhoven, The Netherlands

## SUPPLEMENTARY INFORMATION

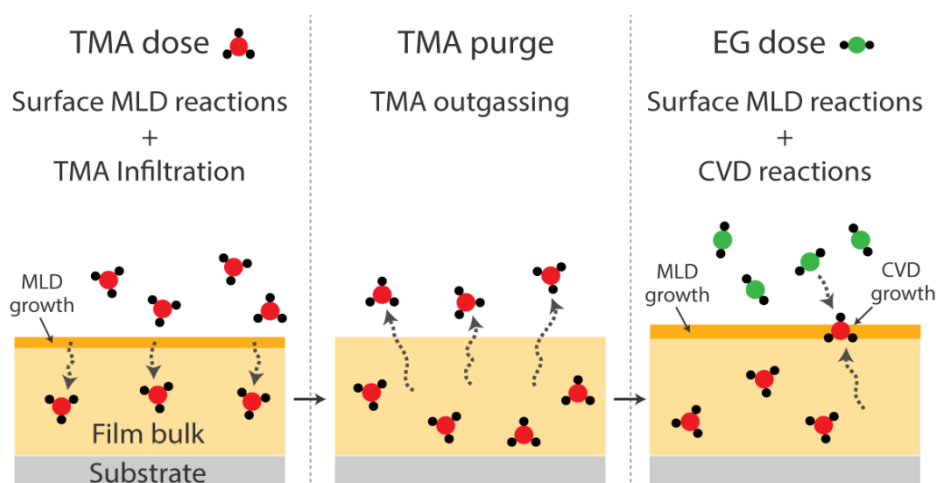


Figure 1: Alucone film growth scheme showing how surface MLD reactions and CVD reactions contribute towards overall film growth. TMA = Trimethylaluminum, EG = Ethylene glycol

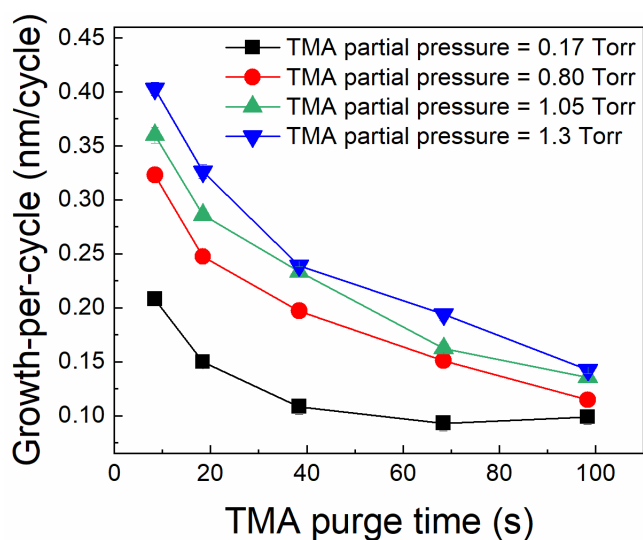


Figure 2: Growth-per-cycle (GPC) of the TMA + EG alucone MLD as a function of TMA purge time. In these experiments conducted at 150 °C, the EG dose and purge time were kept constant while the TMA purge time was varied. For each TMA partial pressure, the overall GPC decreases exponentially with TMA purge time attributed to the decreasing CVD contributions and after long enough purge times reaches a steady-state value of growth only due to the MLD contributions.