

Electron-Enhanced Atomic Layer Deposition (EE-ALD) of TiCN Ternary Nitrides with Tunable Composition

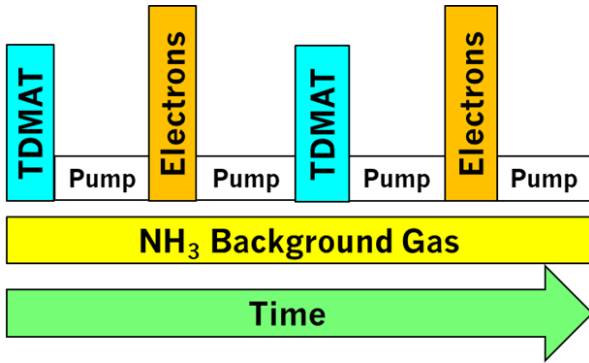


Figure 1. Schematic of TiCN EE-ALD using TDMAT and electron exposures with a continuous NH_3 reactive background gas.

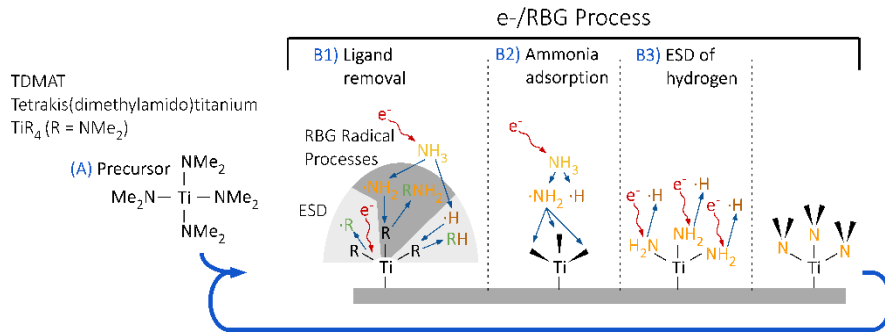


Figure 2. Illustration of many processes occurring during TiCN EE-ALD using TDMAT with NH_3 reactive background gas.

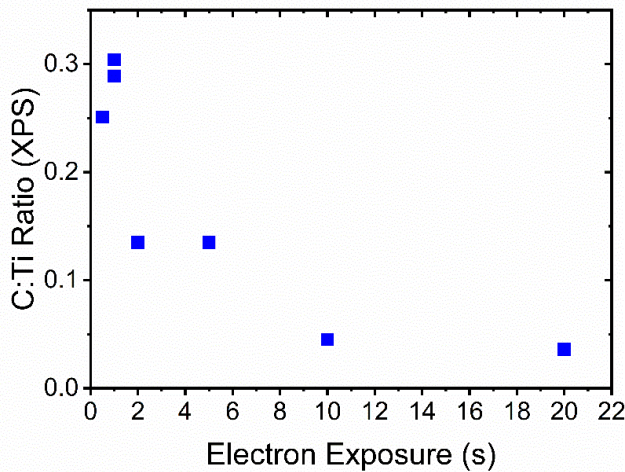


Figure 3. Ex situ XPS determination of the C:Ti ratio in TiCN EE-ALD films. Shorter electron exposures lead to the incorporation of more C into the films.