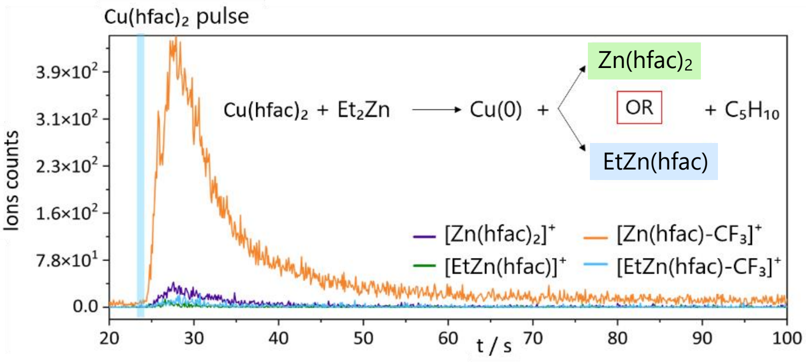
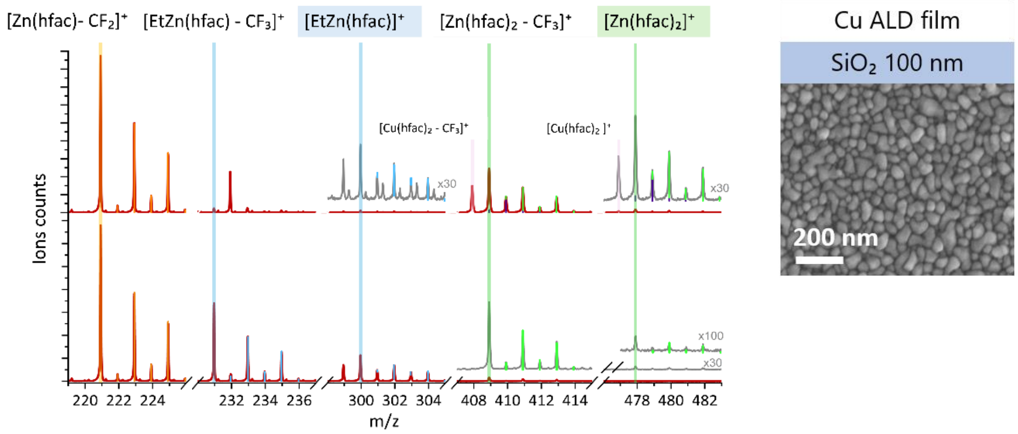
Reaction Pathway of Copper Atomic Layer Deposition via Time-of-Flight Mass Spectrometry



Time-resolved MS spectrum showing the byproducts molecular peaks M^+ and fragmentations during $Cu(hfac)_2$ half cycle.

Resulting MS



(left) $Zn(hfac)_2$ and etZn(hfac) mass spectrum associated to the TS. (right) Obtained Cu ALD film on SiO_2.