



Figure 1. (a) Polymeric hexatin(II)-di- μ_3 -oxyoctakis(μ -trifluoroacetate) [$\text{Sn}_6\text{O}_2(\text{tfa})_8$] and (b) tin(IV) tetrakis(μ -trifluoroacetate) [$\text{Sn}(\text{tfa})_4$] depolymerize into small volatile subunits tin(II) trifluoroacetate [$\text{Sn}(\text{tfa})_2$] and ditin(II) bis(μ -trifluoroacetate) [$\text{Sn}_2\text{O}(\text{tfa})_2$], and monomeric tin(IV) tetrakis(κ_2 -trifluoroacetate), respectively. (c) $\text{Sn}_6\text{O}_2(\text{tfa})_8$ shows self-limiting behaviour at 400 °C with water then air to deposit FTO. (d) Clausius-Clapeyron relationships for $\text{Sn}_6\text{O}_2(\text{tfa})_8$ (green circles), $\text{Sn}(\text{tfa})_4$ (blue triangles), and their acetate cousins tin(II) acetate [$\text{Sn}(\text{OAc})_2$] and tin(IV) acetate [$\text{Sn}(\text{OAc})_4$] with heats of vaporization listed in kJ mol^{-1} . (e, f) Thermogravimetric analysis (TGA) and stress test results (inset) for trifluoroacetates and acetates.