



Figure 1: Reflection absorption infra-red spectra for two Hacac-functionalized Al_2O_3 surfaces: one as-deposited (black), one after a 5 hour anneal at 300°C (orange), and the difference between the two (blue). A shift in the C-O vibration peak around 1610 cm^{-1} indicates a higher fraction of adsorbates in the chelate configuration on the annealed substrate. Furthermore, the total area underneath the Hacac peaks is lower on the annealed surface, indicating a lower amount of adsorbates. Both of these results together show there is less steric shielding and more chemical passivation on the surface that was annealed prior to Hacac adsorption.