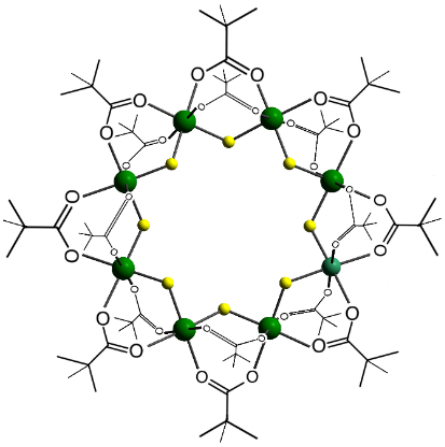

Figure 1 The structure of the $Cr_8F_8(Pivalate)_{16}$ molecule in a ball-and-stick representation. Chromium atoms are green and fluorine atoms are yellow. Hydrogen atoms are omitted for clarity.

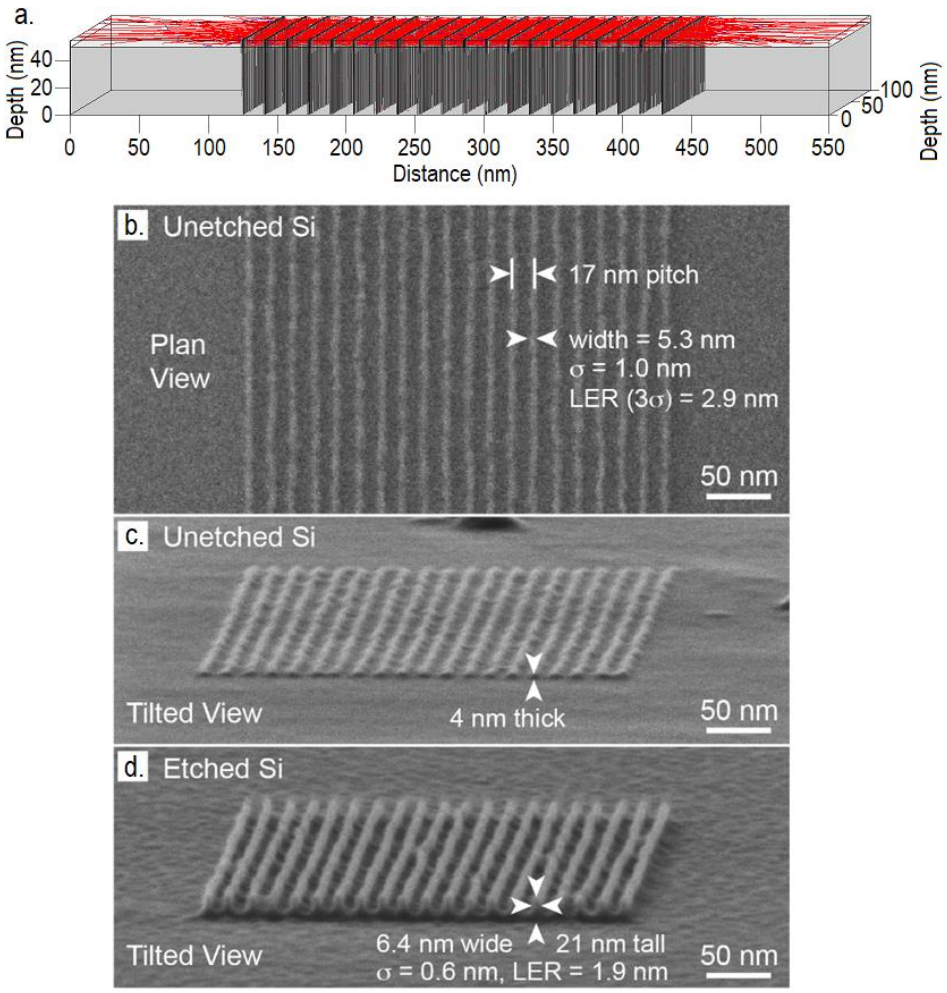

Figure 2. a) 8.5 nm half pitch lines simulated in $Cr_8F_8(Pivalate)_{16}$ using 14 35 KeV incident Helium ions per spot. The black lines represent the helium ions from the incident beam while the 1st, 2nd, 3rd and 4th order SEs indicated by the red, blue, green and magenta colours. b) HIM images of lines spaced with 8.5 nm half pitch on silicon substrate. Developed resist structures are shown in plan-view prior to an ICP–RIE etch. c) developed resist structures are shown when tilted to 87° prior to the etch. d) fin-like structures are shown following the etch. Measurements to the nearest 0.1 nm were made via GenISys ProSEM software. Average width (w), standard deviation (σ) and line edge roughness, LER (3σ), were determined using GenISys ProSEM software.