Supplementary information for

Epitaxial GaN by Atomic Layer Deposition on SiC without an interface layer using $Ga(NMe_2)_3$ and Ga(III) Triazenide together with NH_3 Plasma

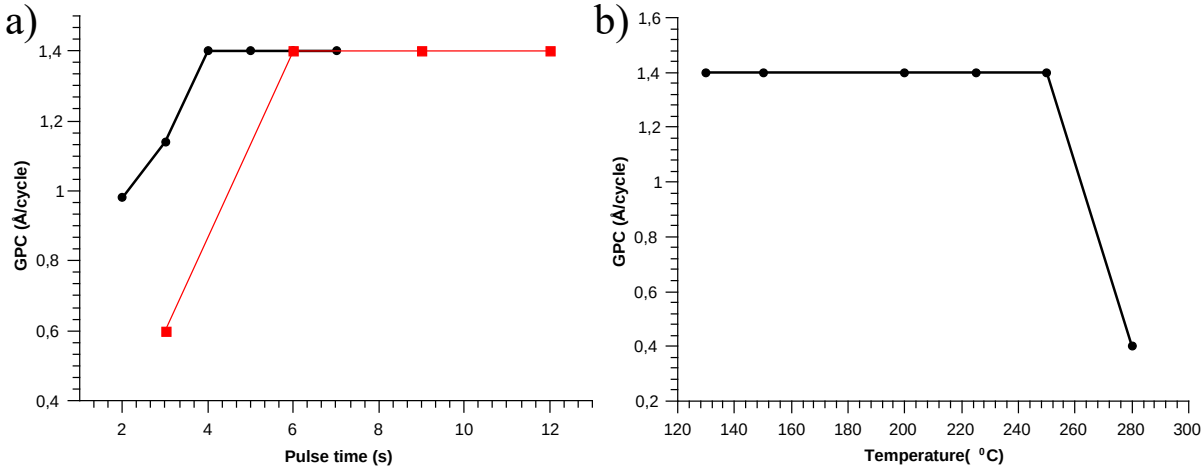

Figure 1: a) The saturation curve for **1** (black circles) with 9s NH_3 plasma pulse and NH_3 plasma (red squares) with 4s pulse of **1** deposited at 220 °C. b) The GPC dependence of temperature, 9s NH_3 plasma and 4s pulse of **1**.

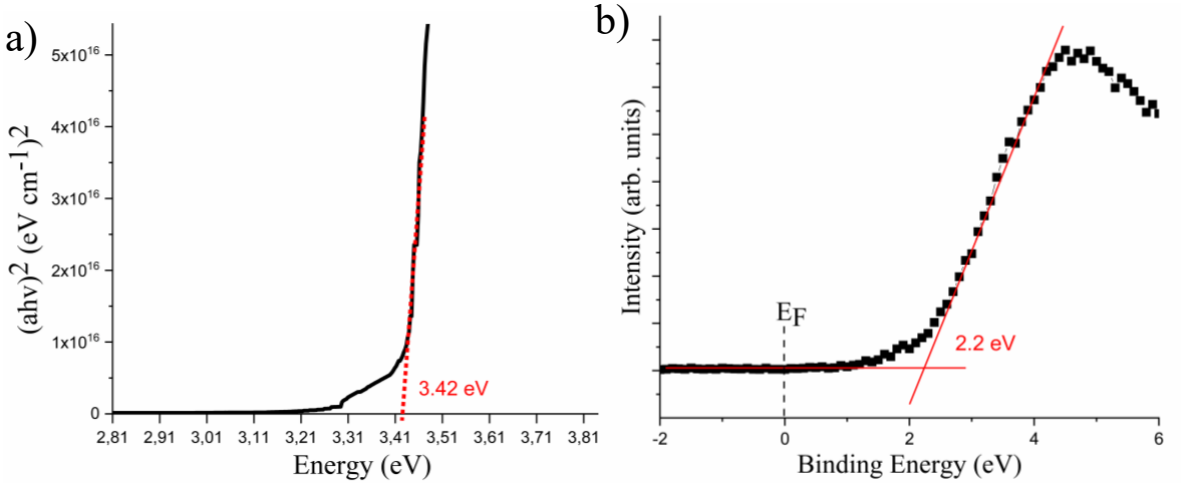

Figure 2: a) The Tauc plot for the GaN deposited at 250 ◦C with 4s pulse of **1** and 9s NH_3 plasma pulse. b) The near Fermi level (E_F) region together with the valence band maxima obtained from extrapolating the baseline with the linear fit of the XPS spectrum.

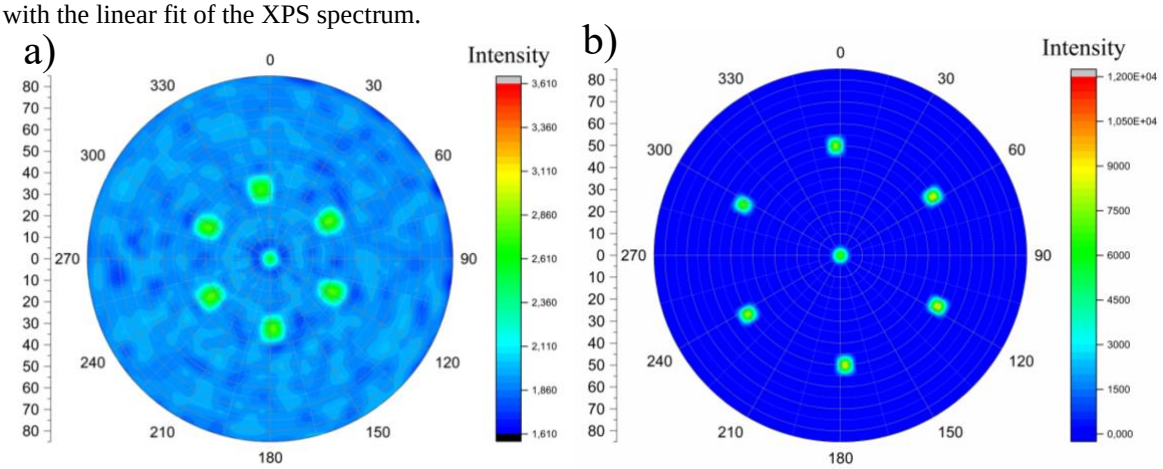

Figure 3: a) Pole figure of (10-13) plane for GaN deposited at 250 ◦C with 4s pulse of **1** and 9s NH_3 plasma pulse showing the six poles of the hexagonal GaN. b) Pole figure of (10-12) plane for 4H-SiC substrate showing the six poles representing its six-fold symmetry.