



Figure 1. (a) On-axis HRXRD  $2\theta/\omega$  scans of PEALD AlN films on various substrates and templates, with AlN peak indicated by dashed black line. (b) HRXRD  $\omega$  rocking curve measurement at the AlN (111) peak for the AlN/GaN sample. (c) IP-GID long range  $\phi$  scans at the GaN (11-20) and AlN (2-20) peaks showing 60 degree azimuthal rotational symmetry.