Film Properties of Medium-Stress SiN_x deposited at the chuck temperatures of 50, 100 and 250ºC with pressure=15 mT, bias/ICP powers=50/400 W, SiH_4(100%)/He/N_2: (a) 8.2/352.5/4 sccm (at 50ºC); (b) 8.2/352.5/4 sccm (at 100ºC); (c) 8.2/352.5/4 sccm (at 250ºC).

Medium-Stress SiN_x Film (50W Bias Power, No Ar), Grown using Unaxis ICP PM3 Deposition Tool, Characterizations				
	50ºC(ICP)	100ºC(ICP)	250ºC(ICP)	250ºC(PECVD)
Refractive Index	~2	~2	~2	~2
Deposition Rate (nm/min.)	28.9	30	29.8	10
Buffered HF Etch Rate (nm/min.)	162.3	129	73.5	36
Film Stress (~200 nm in Thickness) (MPa)	-157	-178	-271	260

Figure 1 Medium-stress SiNx deposited at 100ºC onto an etched GaAs Structure.