Thermal Atomic Layer Deposition of Silicon Nitride Using Anhydrous Hydrazine

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Figure 1. (a) GPC, (b) RI, (c), WER, and (d) density as a function of the deposition temperature with hydrazine (red) and ammonia (blue) as the nitrogen sources. HCDS and nitrogen source pulse times were fixed at 0.1 seconds and 0.5 seconds, respectively. The WER was evaluated in a diluted 200:1 HF solution. The LP-CVD SiN_x sample was prepared using SiH₂Cl₂ and NH₃ at 730°C.



Figure 2. Comparison of the electrical properties of SiN_x from this work with other reported studies using different deposition methods and precursors.

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