Electronic Supplementary Information for

Metalorganic chemical vapor deposition of aluminum oxynitride from dimethylaluminum hydride and oxygen: growth mode dependence and performance optimization

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**Fig. S1** Deposition temperature dependent Al 2p, O 1s, and N 1s core level
photoemission spectra of as-processed AlO$_x$N$_y$ films grown on Si. All the samples were sputtered by Ar$^+$ for 1 min.

**Fig. S2** Deposition temperature dependent composition distribution in as-processed AlO$_x$N$_y$ films. All the samples were sputtered by Ar$^+$ for 1 min.