Supplementary Information:

Plasma Enhanced Atomic Layer Deposition of Silicon Carbonitride

Samuel Johnson,[1] Tsung-Hsuan Yang,[1] Jianping Zhao, [2] Toshihiko Iwao, [2] Charles Schlechte, [2] John Carroll, [2] Gabriel Blankemeyer, [2] Peter Ventzek, [2] Joaquin Resasco,[1] Gyeong S. Hwang[1] and John Ekerdt[1]

[1]The University of Texas at Austin, Austin, TX USA

[2]Tokyo Electron America, Inc., Austin, TX USA

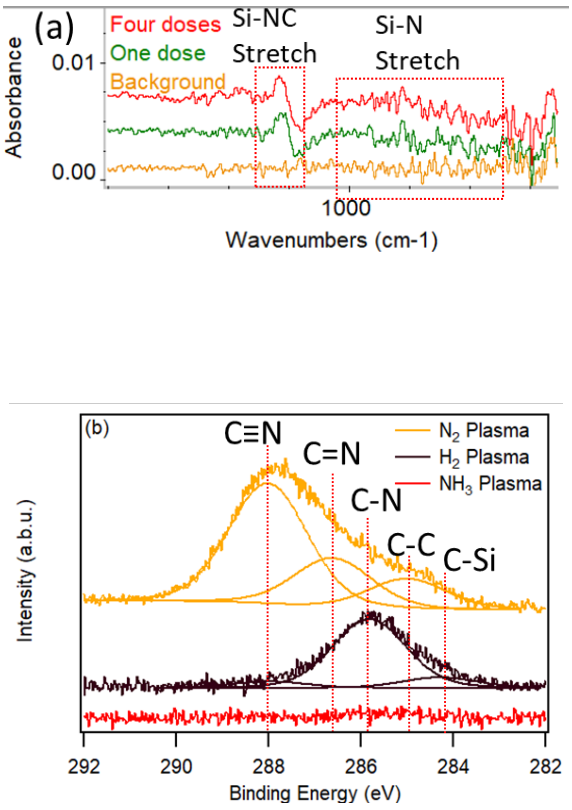

Figure 1: (a) Iterative thermal exposure of the precursor to a SiCN surface at 100 °C, showing a saturation in peak intensity. (b) XPS of C *1s* after 50 PEALD cycles deposited by alternating an exposure of the single source precursor and a plasma step, which is either an ammonia plasma, a hydrogen plasma, or a nitrogen plasma, each revealing a different carbon content.