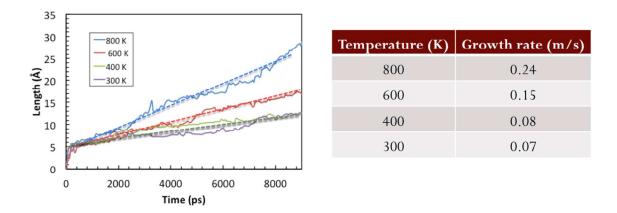
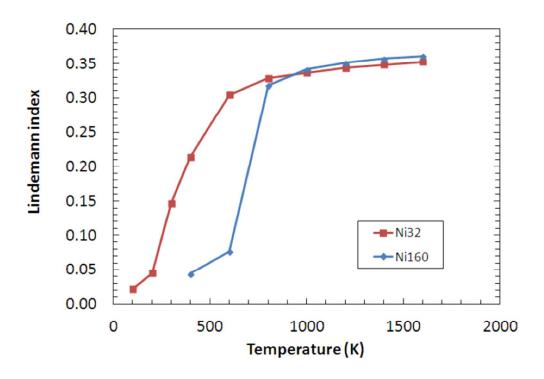
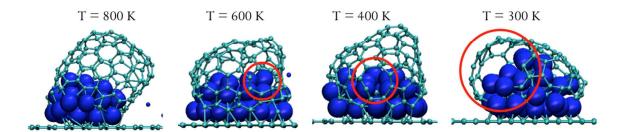
Supporting Information for "Dynamics of Topological Defects in Single-Walled Carbon Nanotubes during Catalytic Growth" by Juan C. Burgos, Erick Jones, and Perla B. Balbuena



**Figure S1.** Growth rates at different temperatures calculated as the slope of the length vs. time curves.



**Figure S2.** Lindemann index calculated for  $Ni_{32}$  and  $Ni_{160}$ . Phase transition for Ni32 calculated at 350 K – 450 K.



**Figure S3**. Nucleation of defects as a function of temperature. At temperatures below 400 K, limited kinetic energy and diffusion hinders both caps lift off and defects healing, leading to nucleation of amorphous carbon.