SURFACE FUNCTIONALIZATION OF CARBON NANOTUBES WITH NITROGEN ATOMS. ***E. Kingston,*** *F. Lu, T. Debies[1], and G. A. Takacs**, Department of Chemistry, Center for Materials Science and Engineering, [1]Xerox Corporation, Webster, NY, eyk7230@rit.edu, gatsch@rit.edu.*

Nitrogenation of carbon nanotubes is under investigation to functionalize their side walls with nitrogen-containing groups in order to promote the grafting of polymers to the surface. Single-walled carbon nanotube (SWNT) powder was surface treated with nitrogen atoms downstream from a low-pressure microwave plasma discharge of an Ar-N_2 mixture. Experiments were conducted both in the presence and absence of the radiation from the plasma. X-ray photoelectron spectroscopy (XPS) was used to detect the atomic concentration within the top 2-5 nm of the surface.