

SUPPLEMENTARY INFORMATION

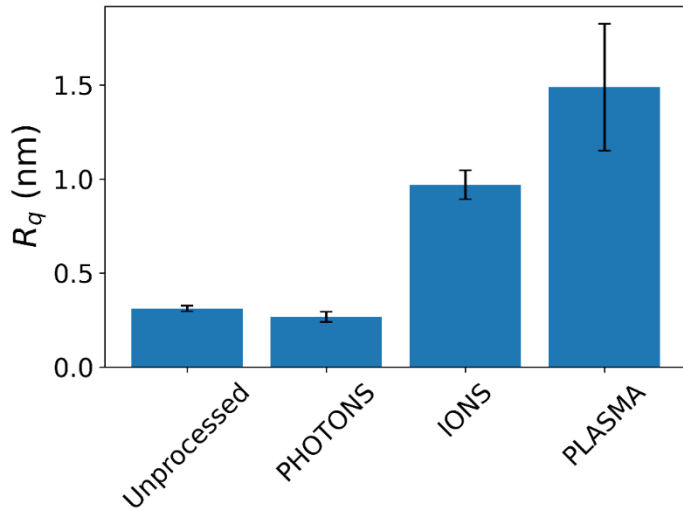


Figure 1 Surface roughness for differently exposed PMMA films. Photon exposure (VUV lamp) causes minimal surface roughness change relative to unexposed sample. Ion (IBE) and plasma (ICP) exposure increase the roughness of the film causing bubble like features.

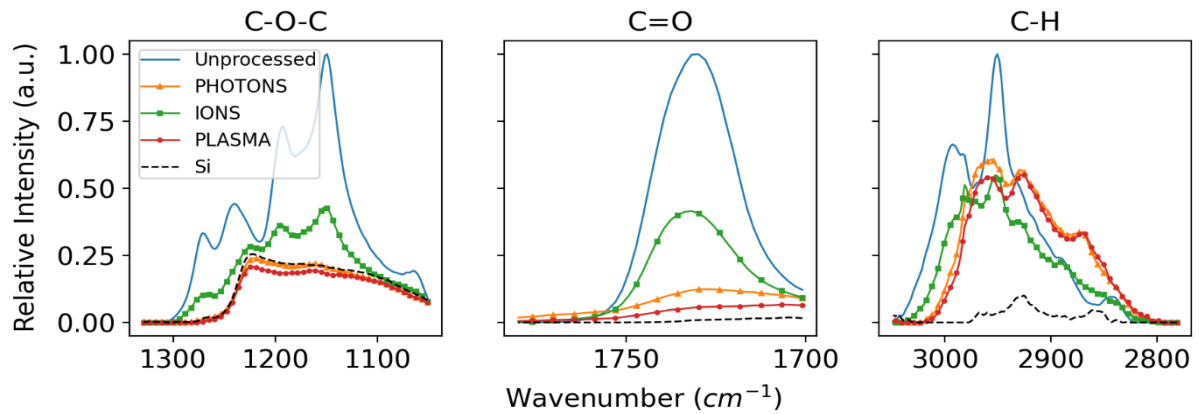


Figure 2 Relative IR absorbance spectra of vibrations corresponding to relevant regions in PMMA. The C-O-C and C=O peaks decrease significantly in PHOTONS and PLASMA exposed samples due to photon-induced deoxygenation.

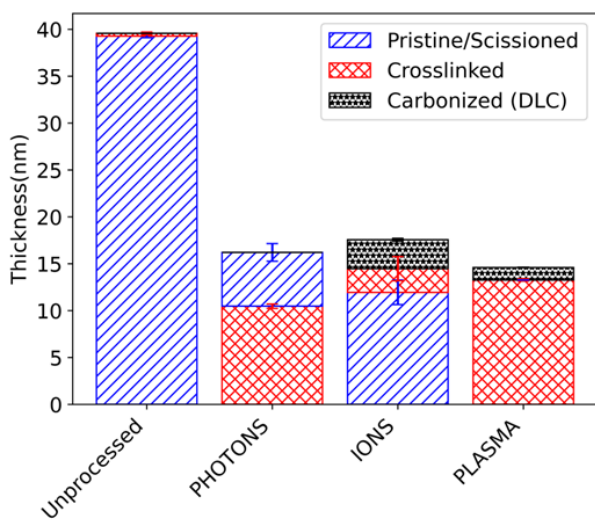


Figure 3 Thickness of 3 different characteristic layers : Pristine, Crosslinked and Carbonized (Diamon-like-carbon DLC) using a multilayer ellipsometry model for differently processed samples.