

Figure S1. Positive mode ESI-FTICR mass spectra of **(a)** the water-soluble fraction (WSF) and **(b)** the base-soluble fraction (BSF) SOM before (WSF0, BSF0) and after (WSF40, BSF40) incubation (see text for additional details). Left figures show the broad band spectra (m/z 200-800), and Right panel is the expanded region (m/z 453.0-455.0) of the left panel. Several CHO formulae peaks are denoted. The corresponding ¹³C isotopic peaks were observed indicating singly-charged situation. Minor peaks were observed with mass defect > 0.6 and could be attributed to salt peaks from DOM-Chloride adducts.