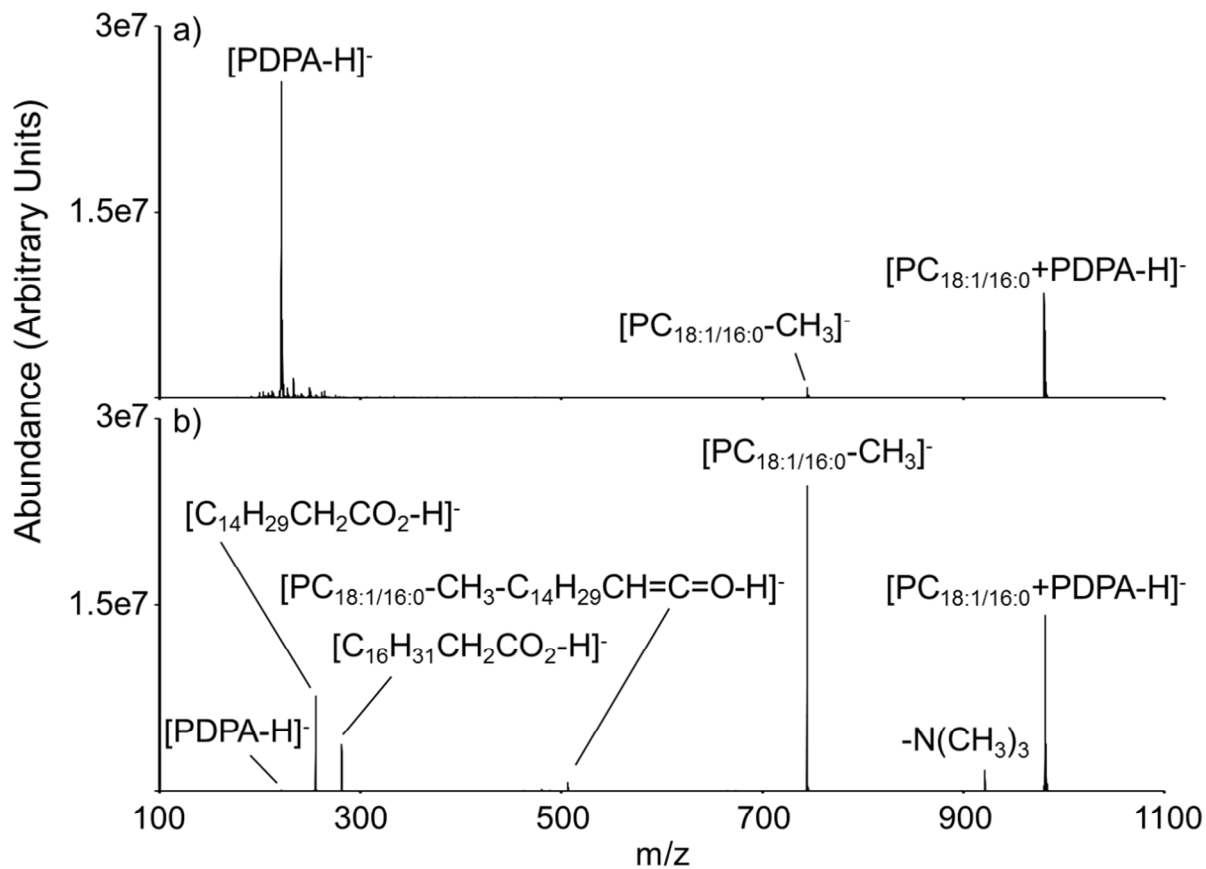
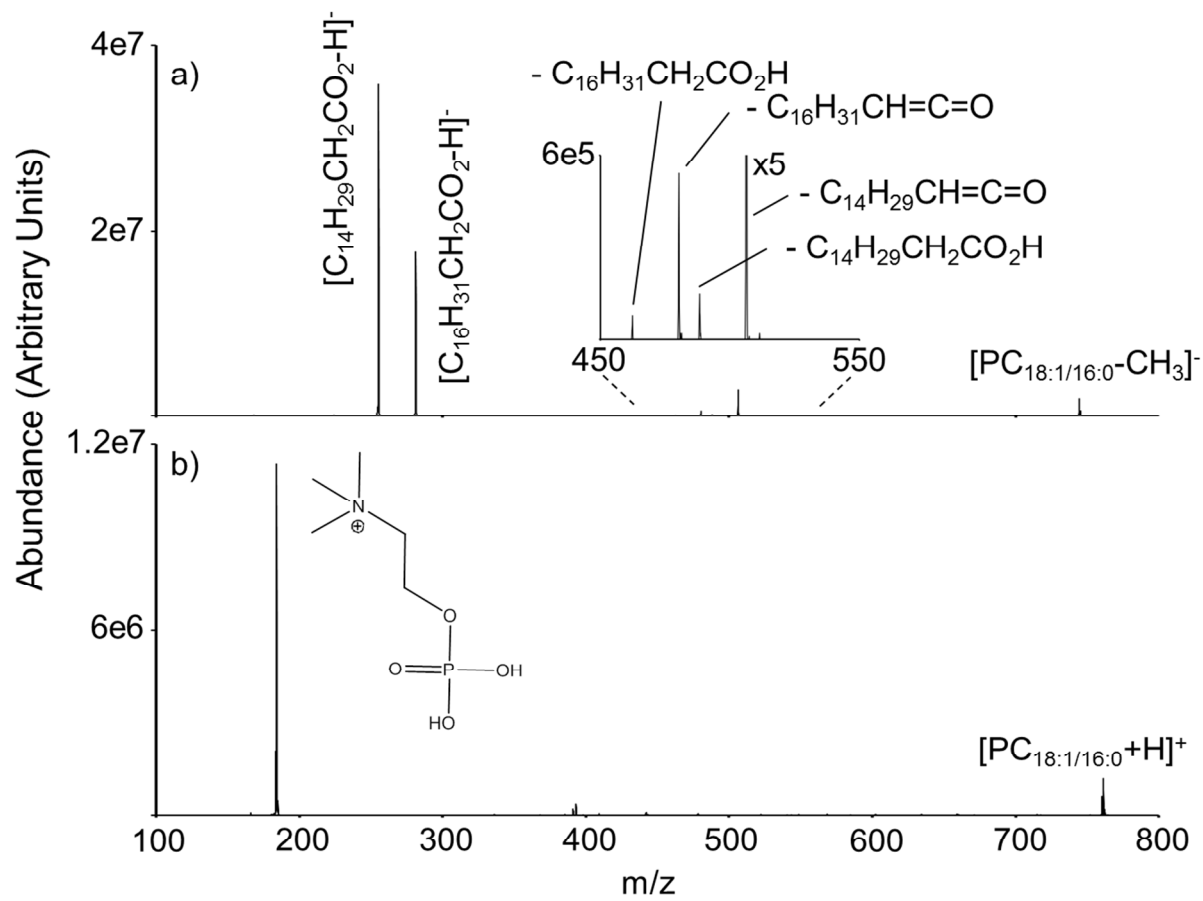


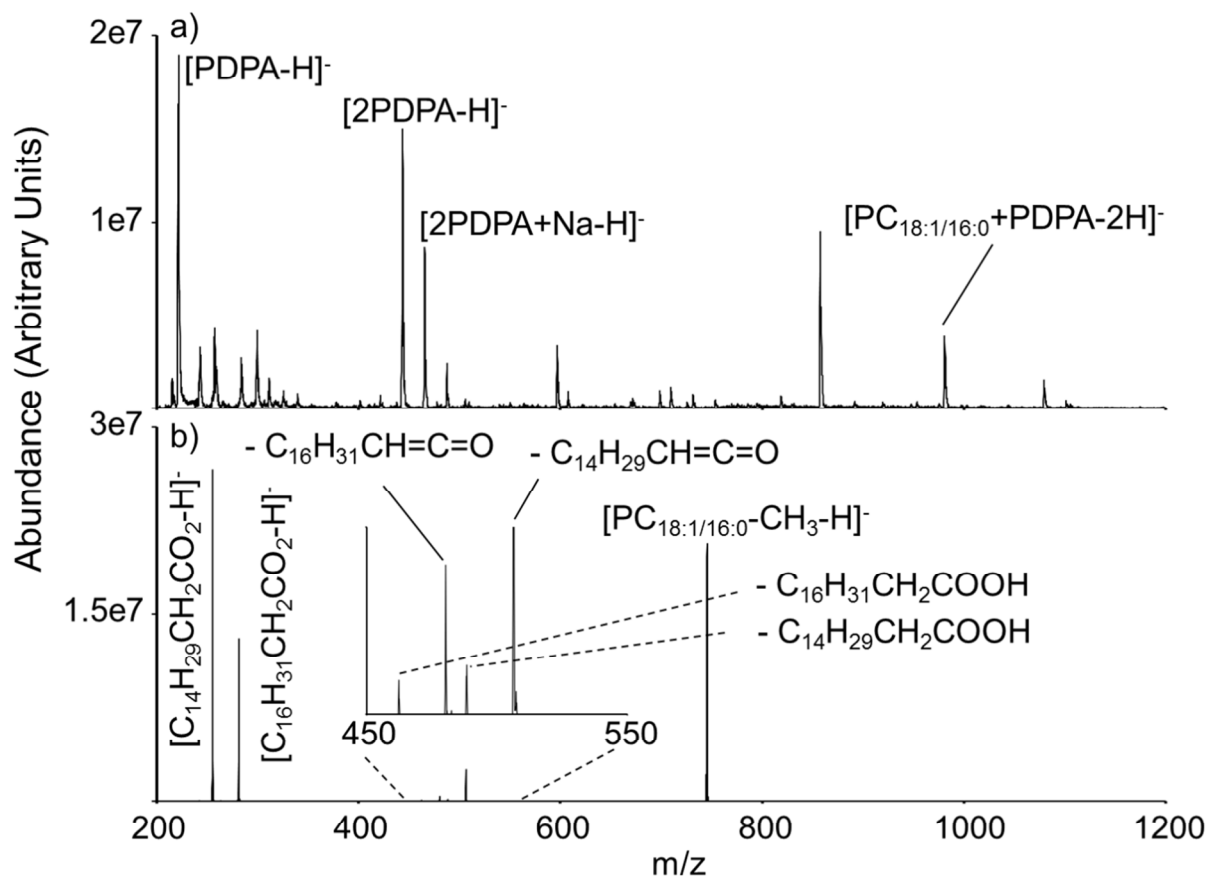
Supporting Information:



S-1: (a) Product ion spectrum following ion/ion reactions between PDPA dianions and 18:1/16:0 PC monocations, (b) Ion trap CID of the long-lived complex,  $[PC_{18:1/16:0}+PDPA-H]^-$



S-2: (a) Ion trap CID of  $[PC_{18:1/16:0}-CH_3]^-$ . (b) Ion trap CID of  $[PC_{18:1/16:0}+H]^+$ .



S-3: (a) Ionization of PDPA and 18:1/16:0 solution phase mixture via negative mode nESI (b) Ion trap CID of  $[\text{PC}_{18:1/16:0}\text{-CH}_3]^-$