One step further in the characterization of synthetic polymers by ion mobility mass spectrometry: Evaluating the contribution of end-groups

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Supplementary Information

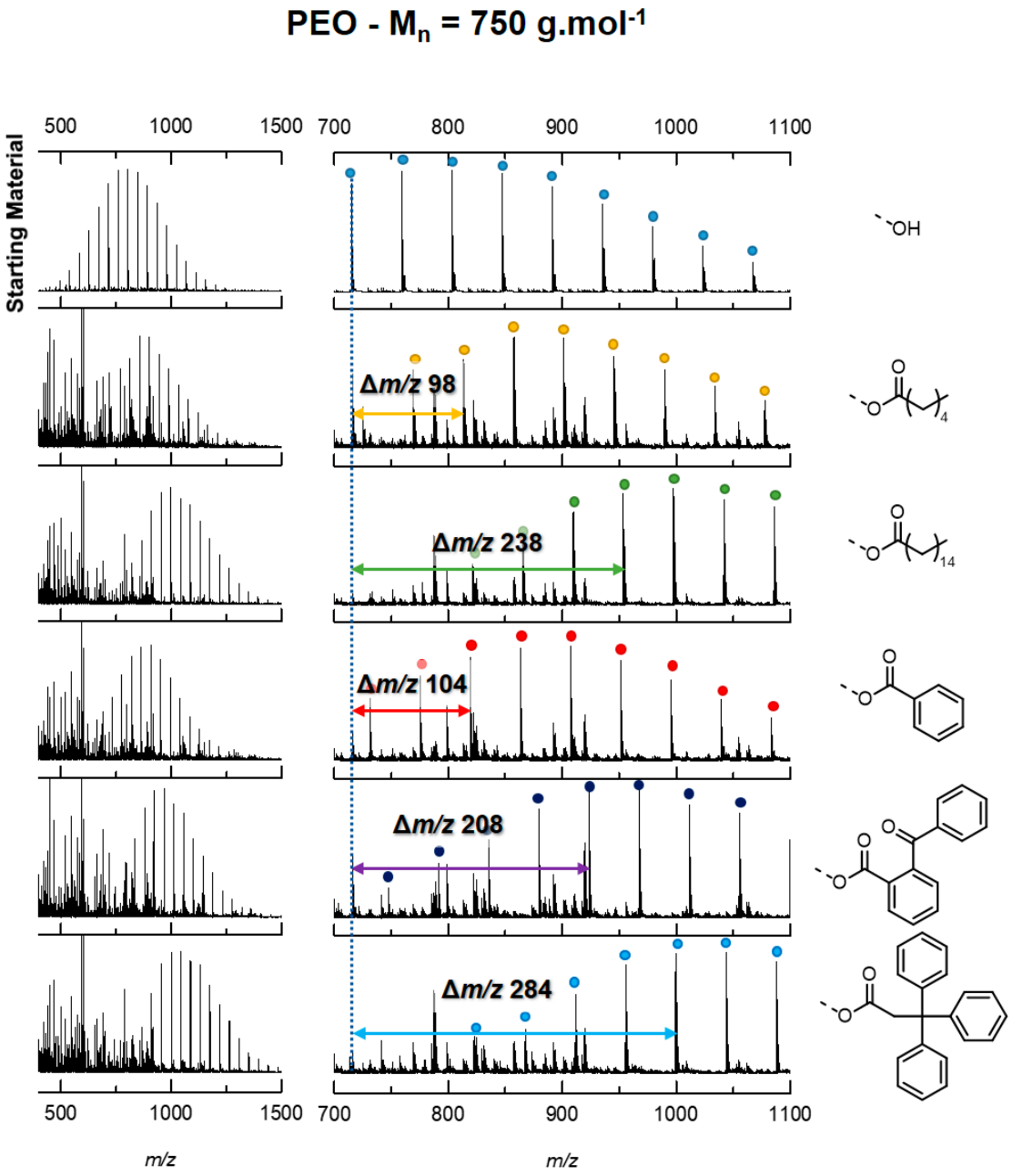

Figure SI1. MALDI mass spectra recorded for functionalized and non-functionalized PEO with M_n = 750 g mol^{-1}. Functionalization was attested by apparition of additional signals with adequate mass differences compared to the α-methyl, ω-hydroxy polymer.

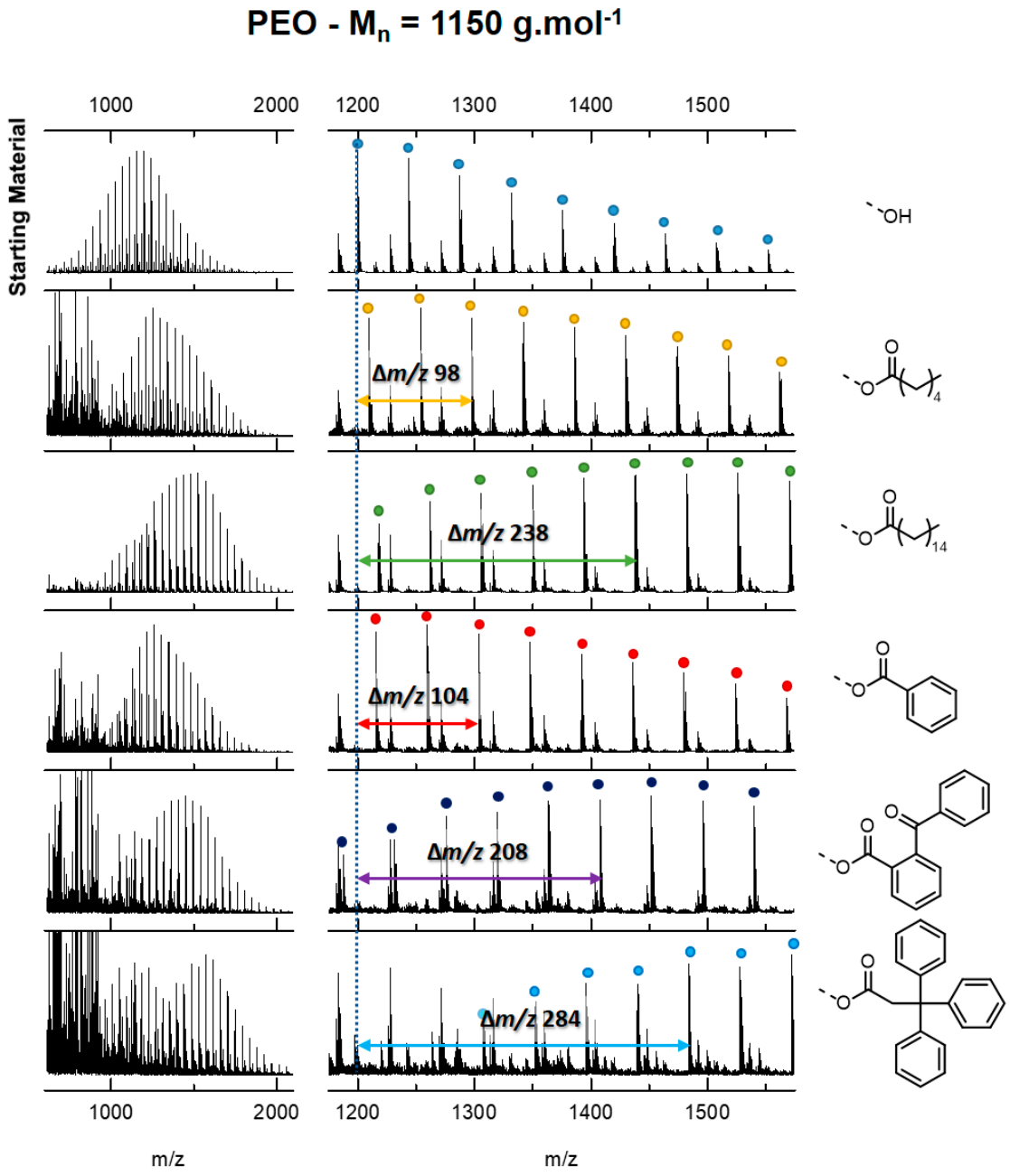

Figure SI2. MALDI mass spectra recorded for functionalized and non-functionalized PEO with M_n = 1150 g mol^{-1}. Functionalization was attested by apparition of additional signals with adequate mass differences compared to the α-methyl, ω-hydroxy polymer.

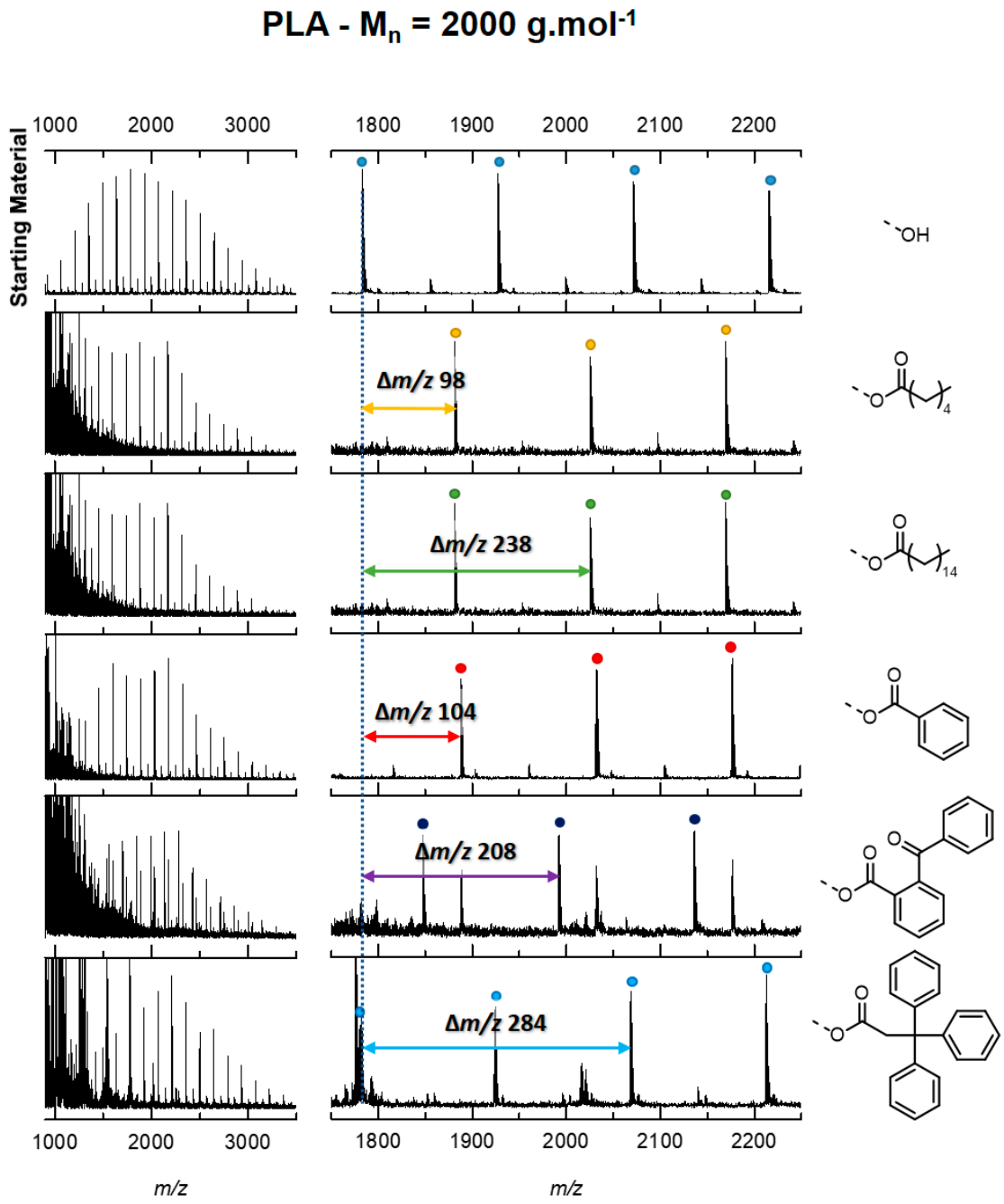

Figure SI3. MALDI mass spectra recorded for functionalized and non-functionalized PLA with M_n = 2000 g mol^{-1}. Functionalization was attested by apparition of additional signals with adequate mass differences compared to the α-methyl, ω-hydroxy polymer.

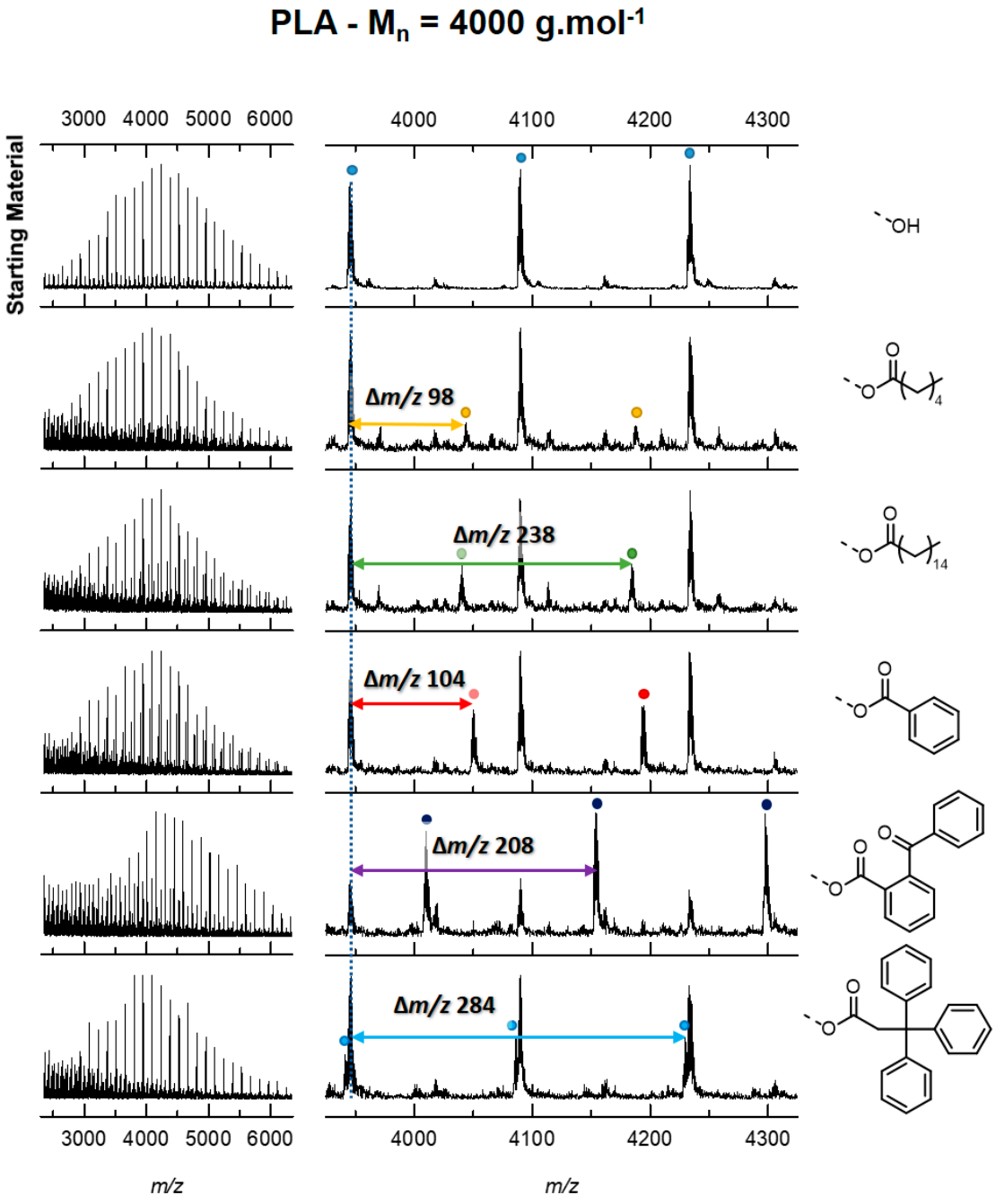

Figure SI4. MALDI mass spectra recorded for functionalized and non-functionalized PLA with M_n = 4000 g mol^{-1}. Functionalization was attested by apparition of additional signals with adequate mass differences compared to the α-methyl, ω-hydroxy polymer.

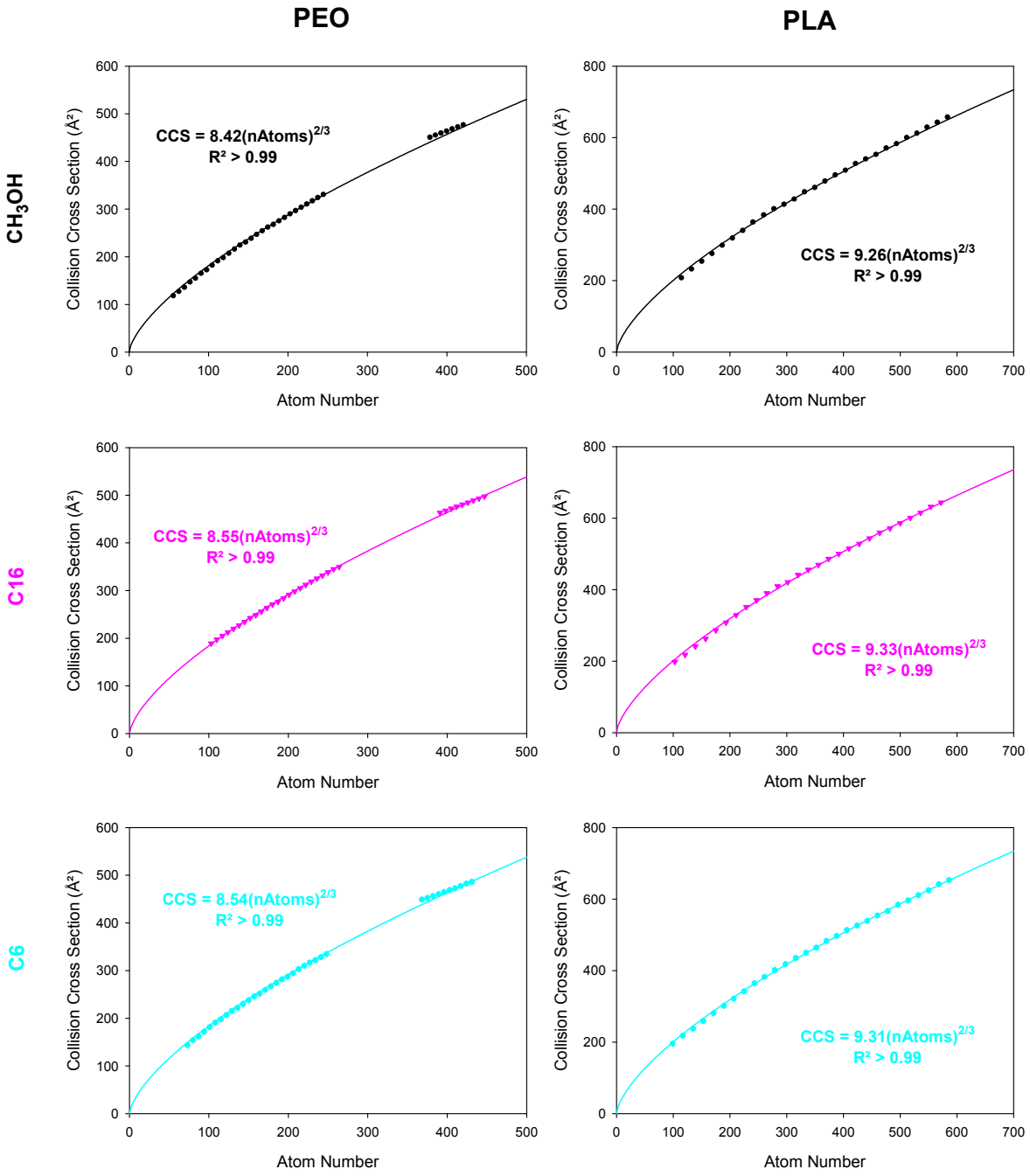

Figure SI5. Evolution of the collision cross section as a function of the number of atoms for singly and doubly charged globular ions for pristine and functionalized PEO and PLA with aliphatic end groups. Fittings were performed using the equation $CCS = A' \, nAtoms^{\frac{2}{3}}$; the equations and regression coefficients of each fit are shown.

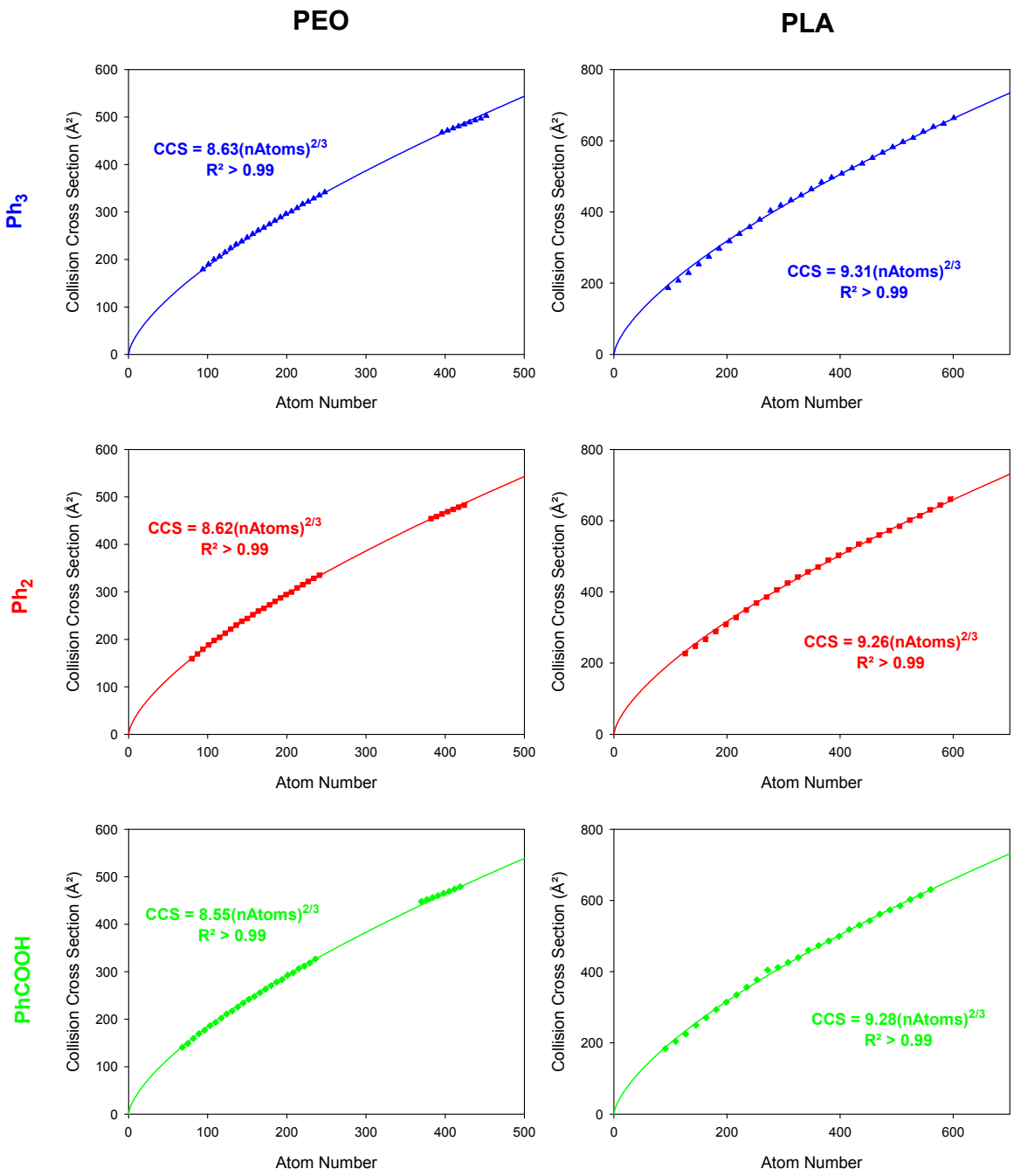

Figure SI6. Evolution of the collision cross section as a function of the number of atoms for singly and doubly charged globular ions for functionalized PEO and PLA with aromatic end groups. Fittings were performed using the equation $CCS = A' \, nAtoms^{\frac{2}{3}}$; the equations and regression coefficients of each fit are shown.