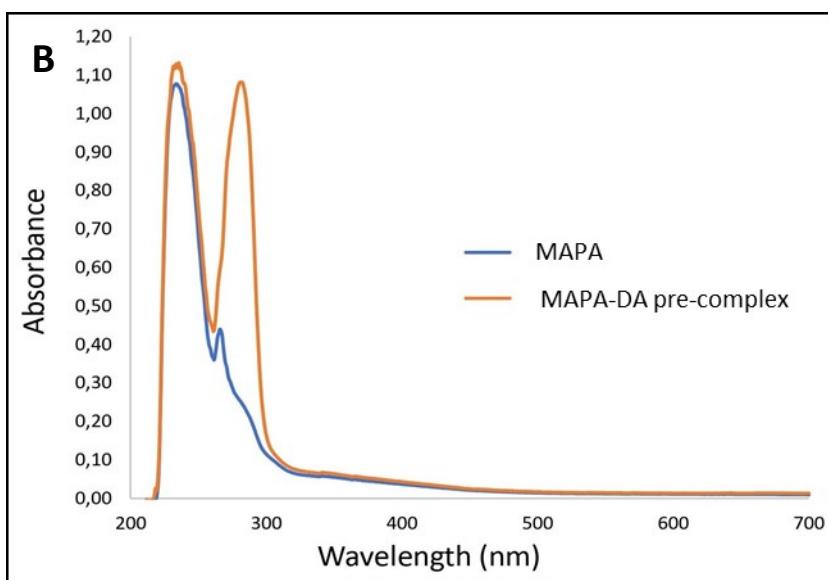
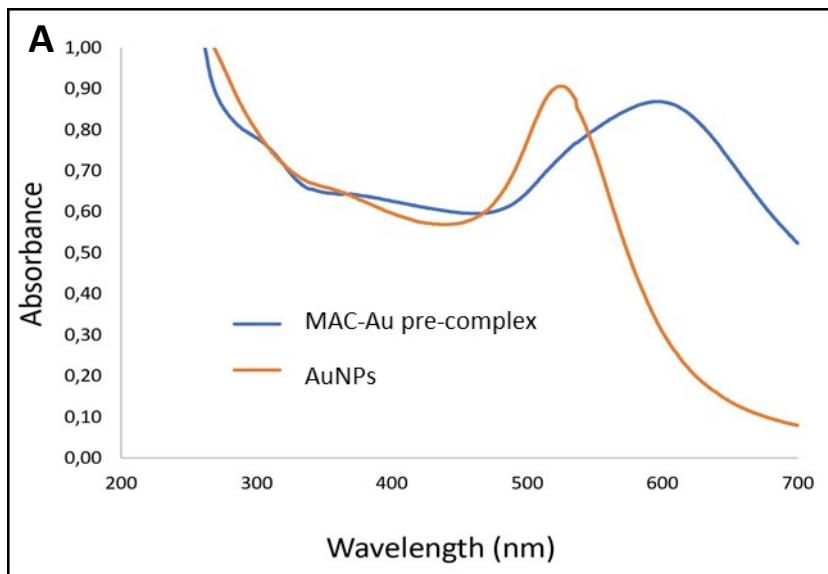
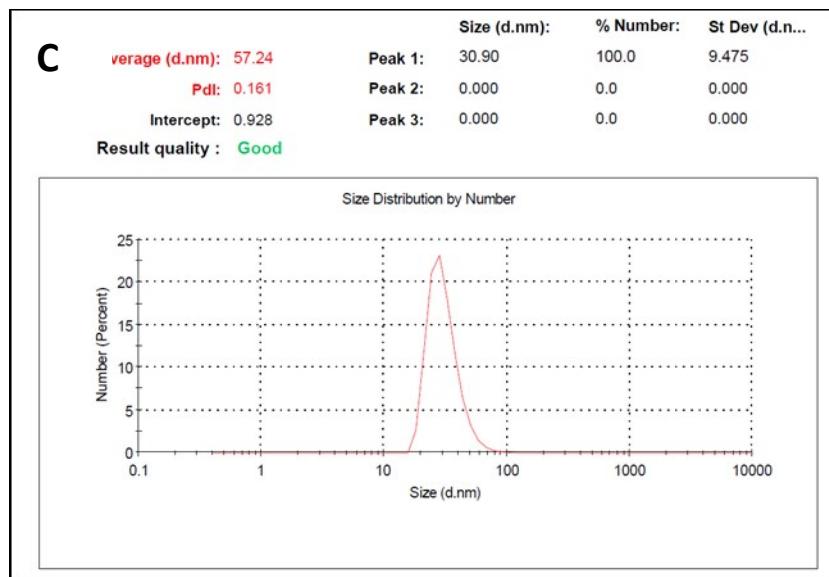
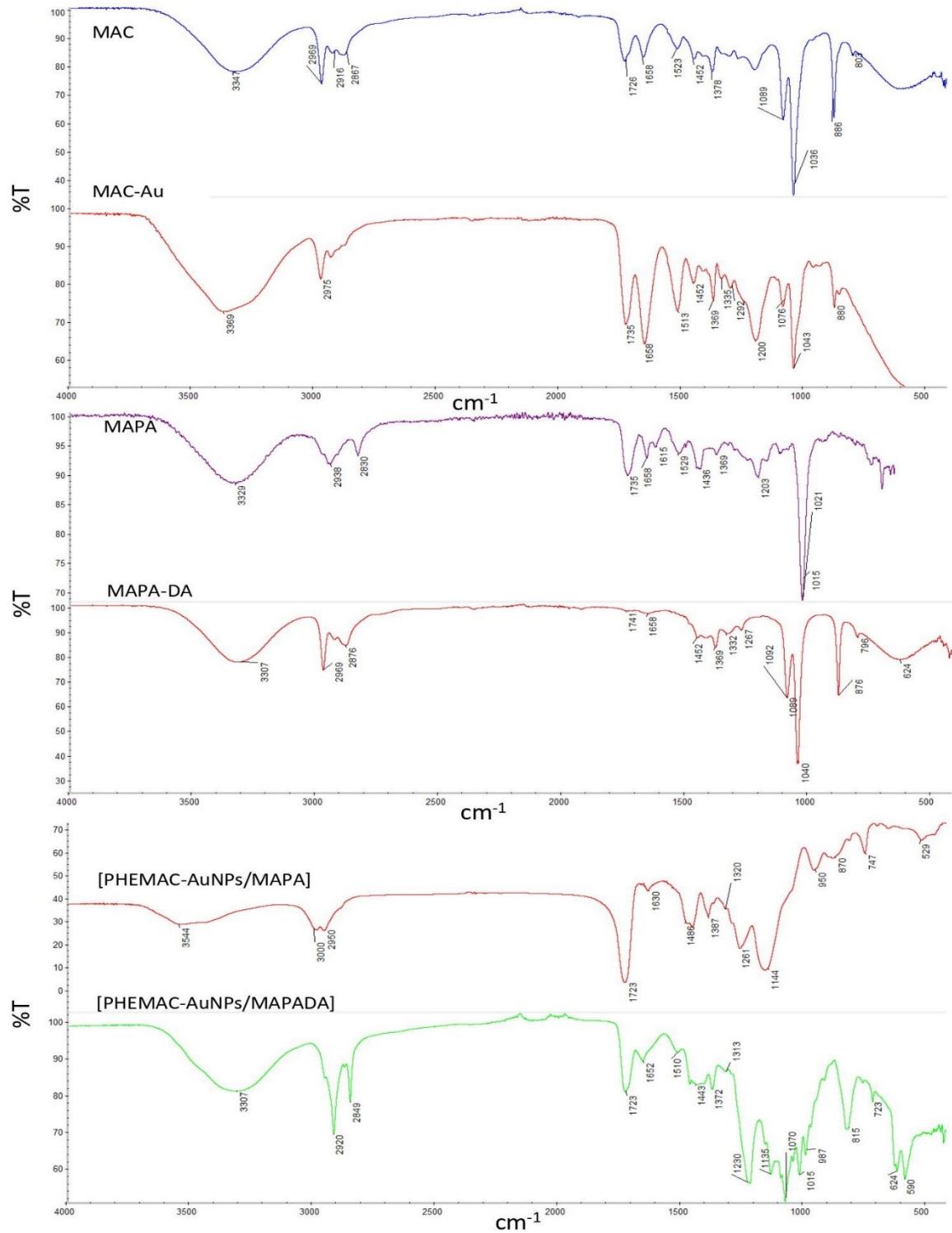


**Supplementary Data**

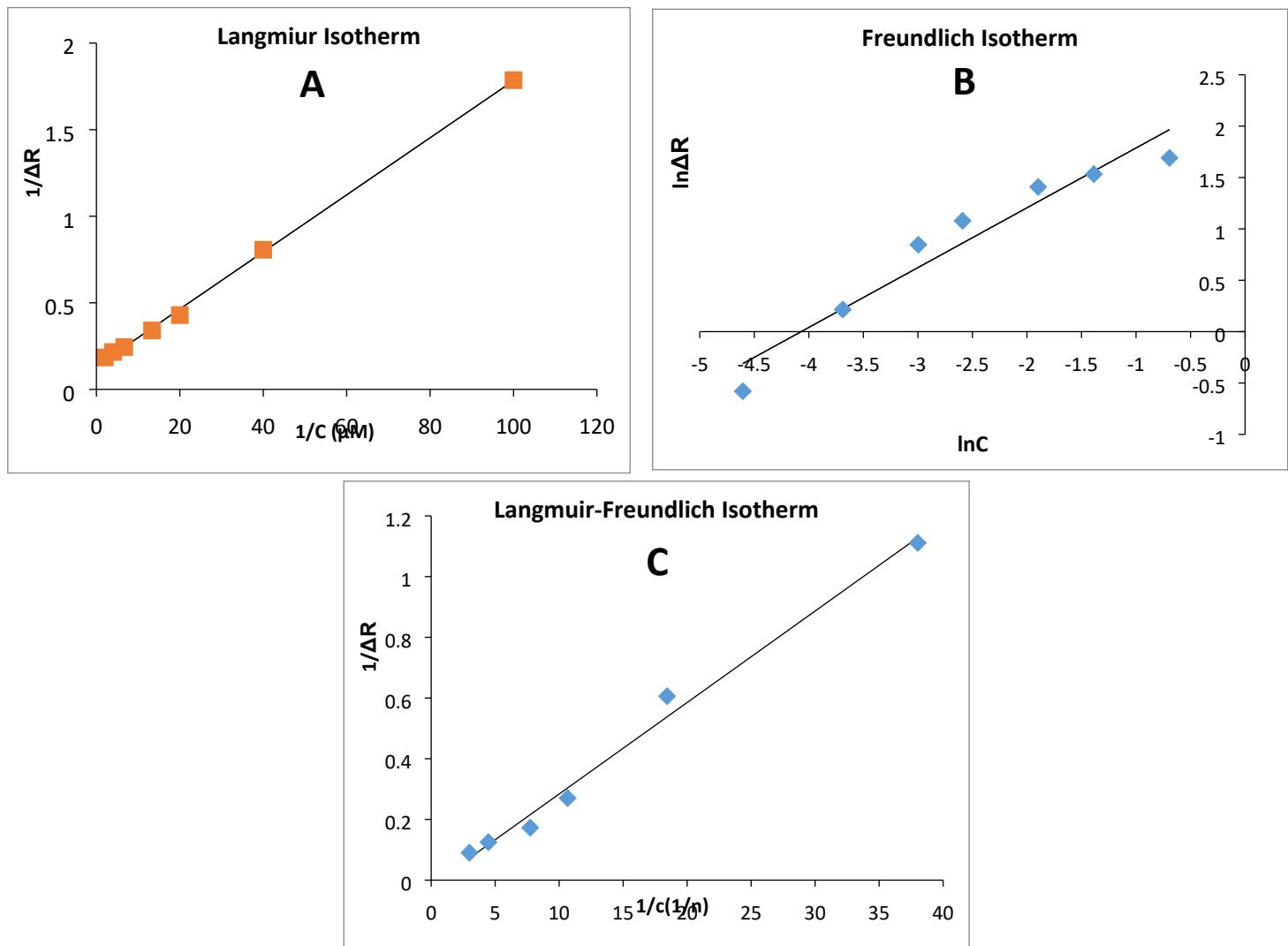




**Supp. Figure 1.A.** Spectrophotometric measurements of MAC-AuNPs **1.B.** Spectrophotometric measurements of MAPA-DA pre-complex **1.C.** Size measurement of AuNPs by zeta sizer.



**Supp. Figure 2.** FTIR-ATR spectrum of MAC monomer and MAC-Au complex; FTIR-ATR spectrum of MAPA monomer and MAPADA complex; FTIR-ATR spectrum of the [PHEMAC-AuNPs/MAPA] and [PHEMAC-AuNPs/MAPADA] nanoparticles.



**Supp. Figure 3.** Adsorption isotherm models **A**. Langmuir isotherm model **B**. Freundlich isotherm model **C**. Langmuir-Freundlich isotherm model.