Supplementary Data

A

![Graph A](image1)

**Absorbance vs Wavelength (nm)**

- **MAC-Au pre-complex**
- **AuNPs**

B

![Graph B](image2)

**Absorbance vs Wavelength (nm)**

- **MAPA**
- **MAPA-DA pre-complex**
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.