

Supplementary Material

β -Cyclodextrin-Hyaluronic Acid Polymer Functionalized Magnetic Graphene Oxide Nanocomposites for Targeted Photo-Chemotherapy of Tumor Cells

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Fig.S1. ¹H NMR and ¹³C NMR spectra of mono-6-deoxyl-6-ethylenediamino- β -CD.

Fig.S2. ¹H NMR spectra of CD-HA.

Fig.S3. Hydrodynamic diameter distributions of MGO and CDHA-MGO.

Fig.S4. N₂ adsorption-desorption isotherm curve of MGO and CDHA-MGO.

Fig.S5. Plot of calibration curves for DOX solution with different concentration.

Fig.S6. Influence of pH on the adsorption of DOX onto CDHA-MGO.

Fig.S7. Linear fitting plots of Lagergren's pseudo-first-order and Ho's pseudo-second-order equations.

Fig.S8. Langmuir plot and Freundlich plot for adsorption of DOX.

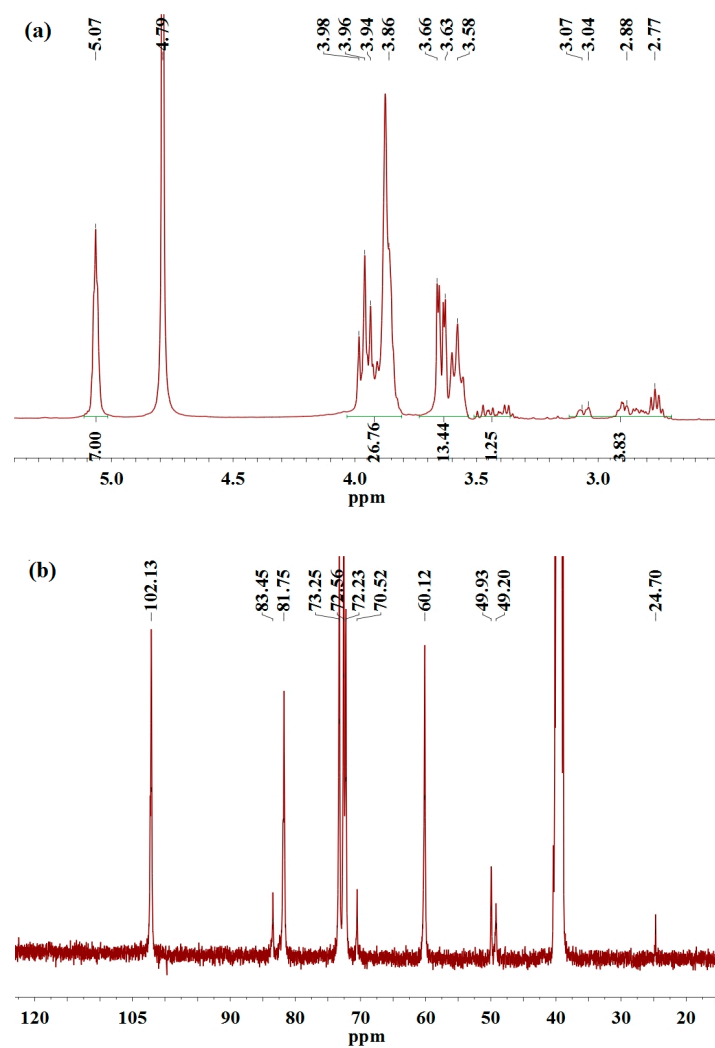


Fig. S1. (a) ¹H NMR spectra of mono-6-deoxyl-6-ethylenediamino- β -CD (400 MHz, D₂O, TMS): δ =5.07 (s, 7 H, H of C-1 of β -CD), 3.55-3.98 (m, 40 H, H of C-3, C-5, C-6, C-2, C-4 of β -CD), 2.86-3.04 (m, 4 H, -NH-CH₂CH₂-NH-); (b) ¹³C NMR spectra of mono-6-deoxyl-6-ethylenediamino- β -CD (101 MHz, DMSO): δ =102.13, 83.45, 81.75, 74.80, 73.63, 72.90, 72.23, 70.52, 60.12, 49.93, 49.20, 24.70 ppm

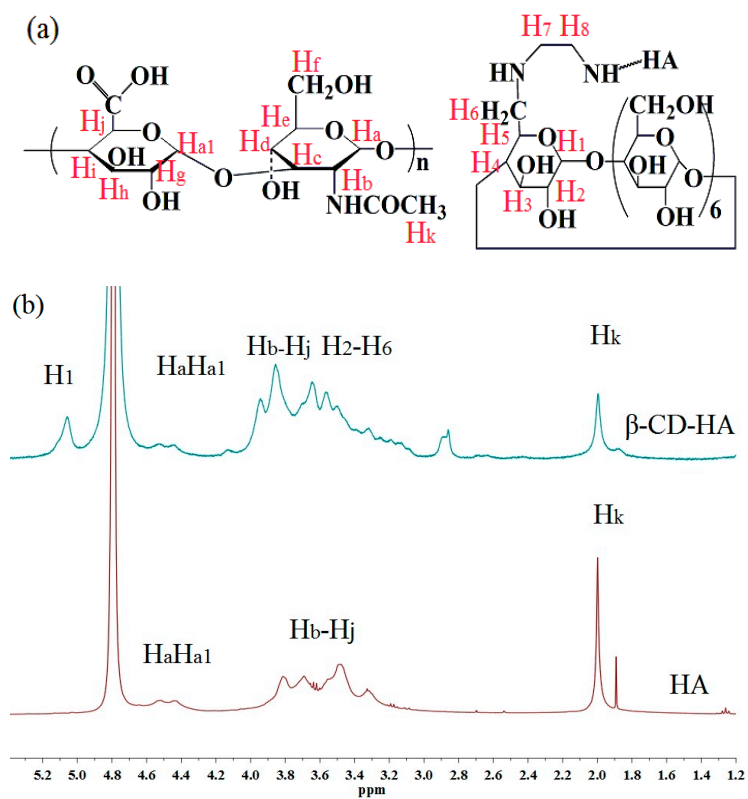


Fig. S2. ^1H NMR spectra of CD-HA (600 MHz, D_2O , ppm): $\delta=1.99$ (s, 3 H, H of CH_3 group of HA), 3.02-3.94(m, 16.44 H, H of HA and C-3, C-5, C-6, C-2, C-4 and methylene on ethane diamine group of β -CD), 4.47-4.52(m, 2 H, H of HA), 5.02-5.06 (m, 2.25 H, H of C-1 β -CD).

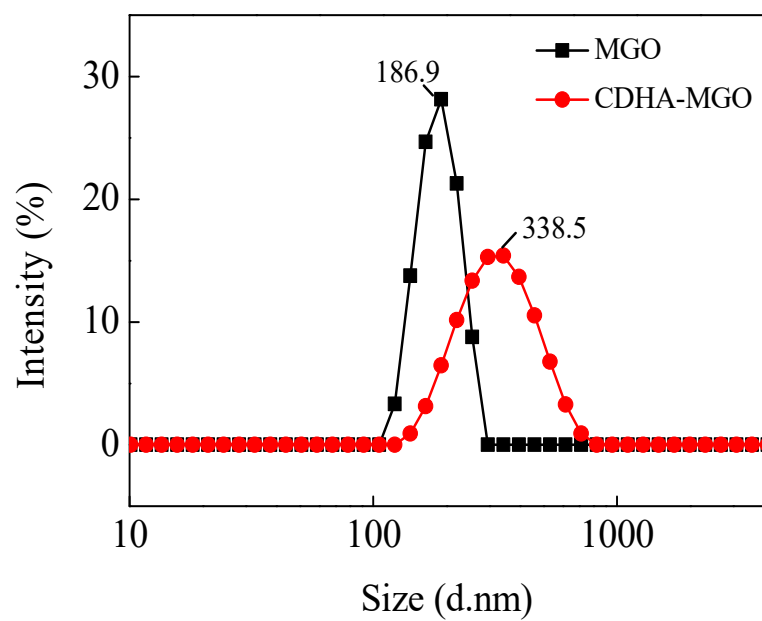


Fig.S3. Hydrodynamic diameter distributions of MGO and CDHA-MGO.

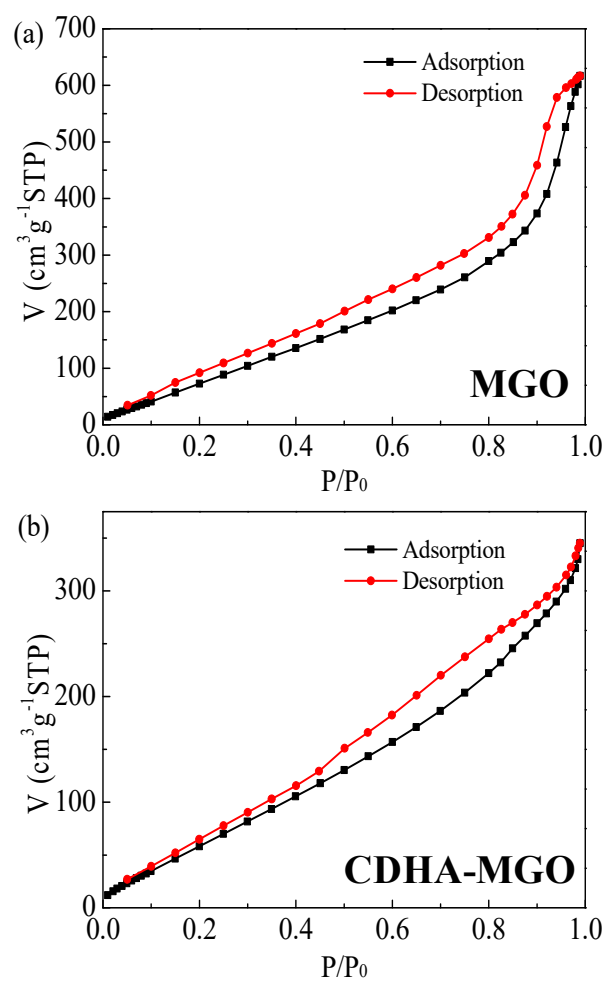


Fig. S4. N₂ adsorption-desorption isotherm curve of MGO (a) and CDHA-MGO (b).

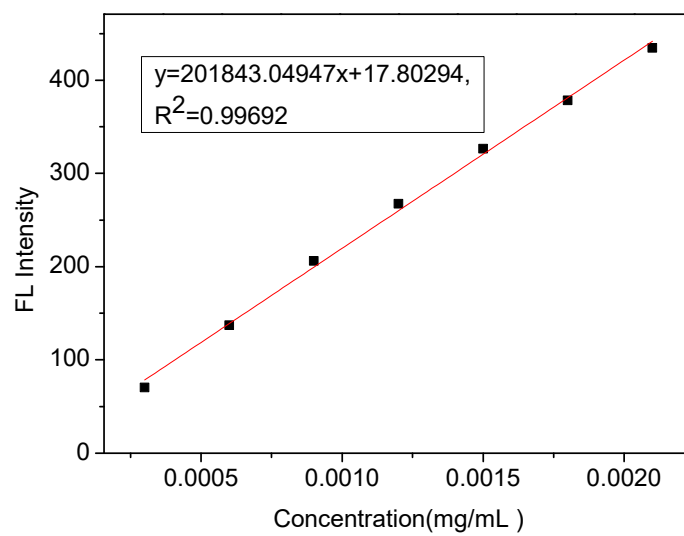


Fig. S5. Plot of calibration curves for DOX solution with different concentration.

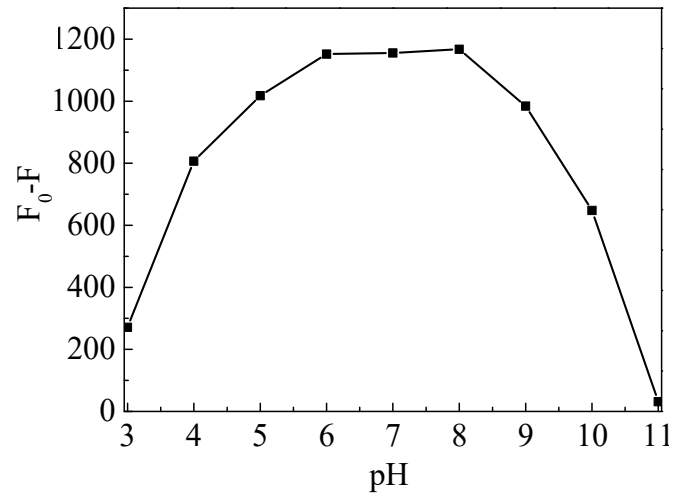


Fig. S6. Influence of pH on the adsorption of DOX onto CDHA-MGO.

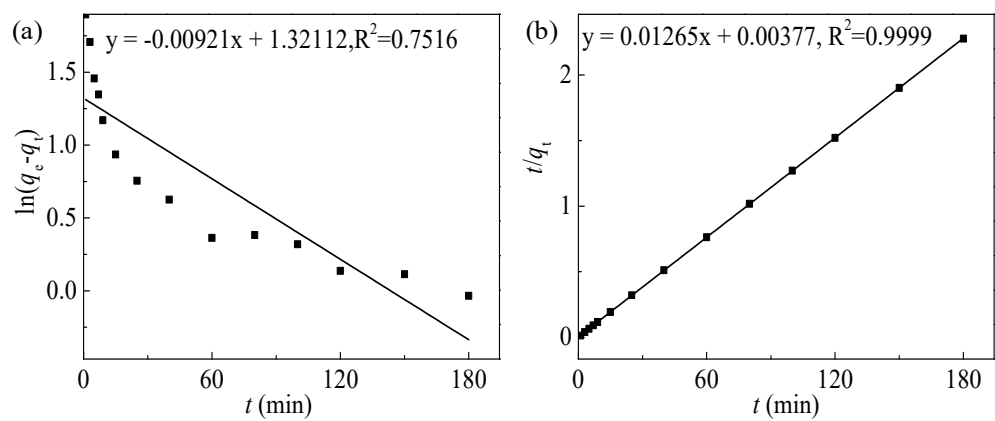


Fig. S7. The linear fitting plots of Lagergren's pseudo-first-order (a) and Ho's pseudo-second-order (b) equations.

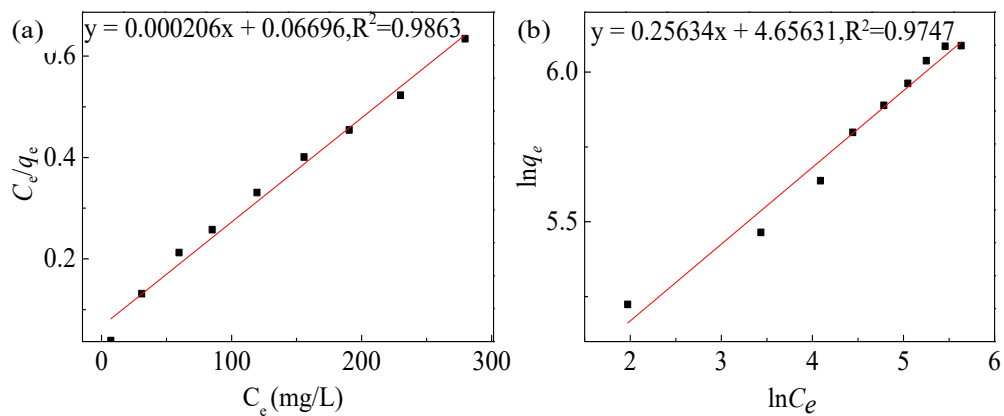


Fig. S8. Langmuir plot illustrating the linear dependences of $1/Q_e$ on $1/C_e$ (a), and Freundlich plot illustrating the linear dependences of $\ln Q_e$ on $\ln C_e$ (b) for adsorption of DOX.