

SUPPORTING INFORMATION

Electrochemically stimulated drug release from flexible electrodes coated electrophoretically with doxorubicin loaded reduced graphene oxide

S1. Determination of DOX loading capacity of GO

The DOX loading capacity of the GO was calculated according to equation (1)

$$\text{Loading capacity} = \left(\frac{c_0 - c_{\text{sup}}}{c_{\text{GO}}} \right) \times 100 \% \quad (1)$$

where c_0 is the initial concentration of DOX added to GO, c_{sup} is the concentration of DOX in the supernatant after adsorption determined by UV/Vis and c_{GO} is the concentration of GO ($500 \mu\text{g mL}^{-1}$).

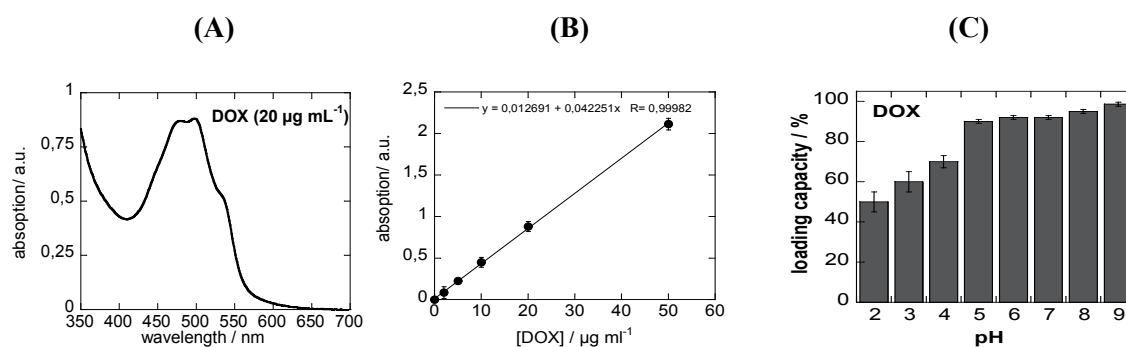


Figure S1: (A) UV/Vis spectrum of DOX ($c=20 \mu\text{g mL}^{-1}$) in water; (B) Change of absorption maximum at 490 nm with increase in DOX concentration, (C) GO loading capacity for DOX as a function of pH by mixing GO (1 mg mL^{-1}) with DOX (1 mg mL^{-1}).

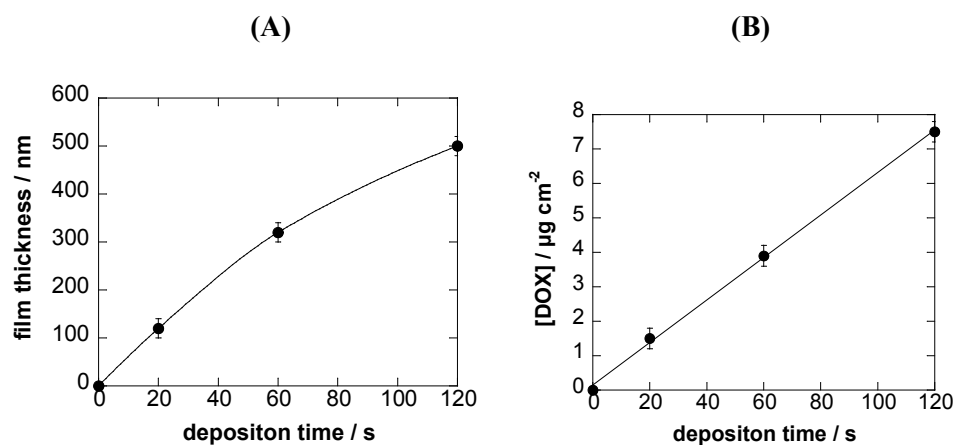


Figure S2: Influence on the deposition time on (A) film thickness; (C) concentration of DOX in the film at $V_{CD} = 15$ V deposition potential.

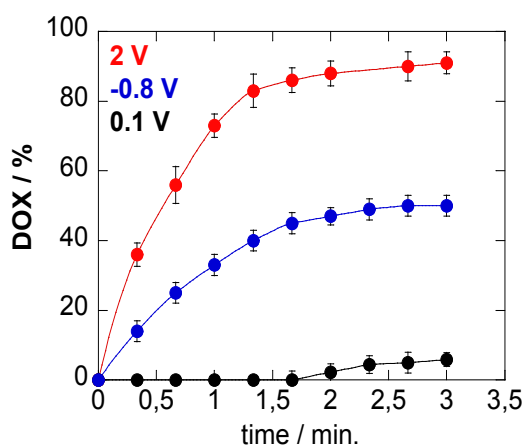


Figure S3: (A) Release profile of DOX from rGO-DOX/Au/Kapton matrix at different potential biases into DMEM.