

Supporting Information

Phosphorylcholine Oligomer-Grafted Graphene Oxide for Tumor-Targeting Doxorubicin Delivery

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The limitations of drug loading capabilities of diverse batches of GO are determined not only by the different modification but also by the intrinsic properties such as the size of the GO used as well as the preparation method. A batch of new GO powder was prepared from exfoliated graphite (purchased from KNANO graphene Co. Ltd., Xiamen, China) instead of natural graphite. All the synthetic procedures were carried out in accordance with the methods in the main manuscript. Likewise, loading of DOX onto new prepared GO-PCn-FA was achieved by mechanically mixing DOX solution with GO-PCn-FA solution in different volume ratios overnight, and the drug loading content and loading efficiency of DOX@GO-PCn-FA were determined by a Waters 2695 high-performance liquid chromatography (HPLC) system.

As Fig. S1 shows, the loading content of DOX onto the new prepared GO-PCn-FA raised to above 45%. It was attributable mainly to the decrease in size and thickness of the GO-PCn-FA nanosheets as compared to the previous samples. In other word, the loading content of DOX onto GO-PCn-FA can be readily promoted to a higher level using graphite of distinct physical properties.

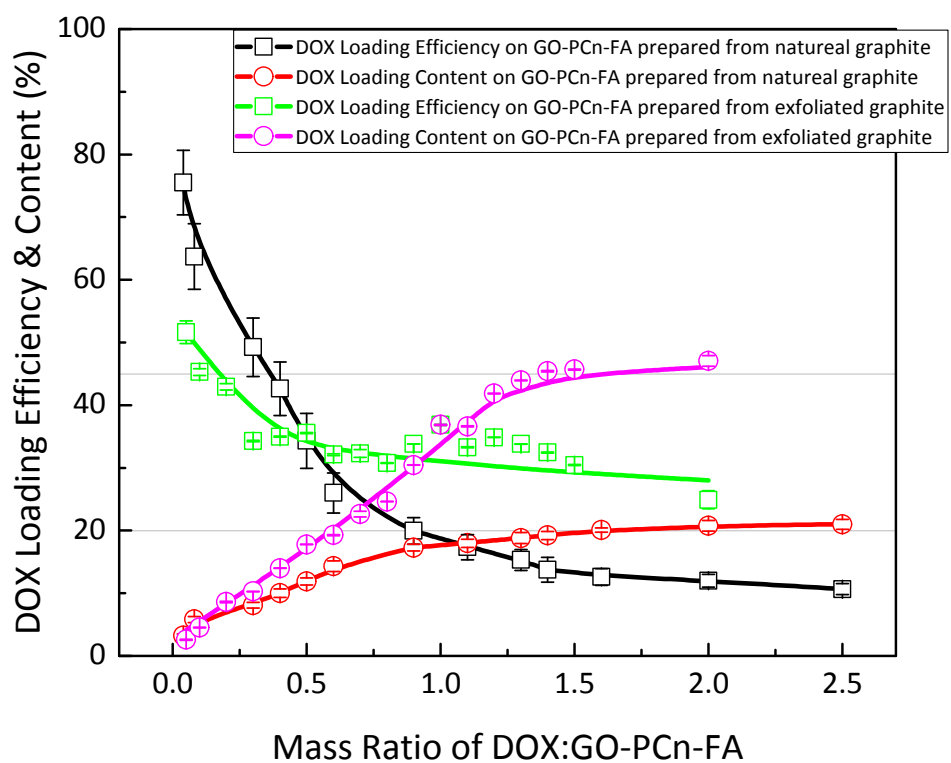


Fig. S1 Loading efficiency and loading content comparison of DOX onto GO-PCn-FA prepared from different type graphite.