## **Supplementary Information**

## Improved Mechanical and Electrochemical Properties of XNBR Dielectric Elastomer Actuator by Poly(dopamine) Functionalized Graphene Nano-Sheets

Dan Yang  $^{1,2,*}$ , Xinxin Kong  $^{1,2}$ , Yufeng Ni  $^{1,2}$ , Mengnan Ruan  $^{2,3}$ , Shuo Huang  $^{1,2}$ , Puzhen Shao  $^{1}$ , Wenli Guo  $^{1,2}$ , and Liqun Zhang  $^{3,*}$ 

- $^{\scriptscriptstyle 1}$  Department of Material Science and Engineering, Beijing Institute of Petrochemical Technology, Beijing 102617, China
- <sup>2</sup> Beijing Key Lab of Special Elastomeric Composite Materials, Beijing 102617, China
- Department of Materials Science and Engineering, Beijing University of Chemical Technology, Beijing 100029, China
- \* Correspondence: yangdan@bipt.edu.cn (D.Y.); zhanglq@mail.buct.edu.cn (L.Z.)

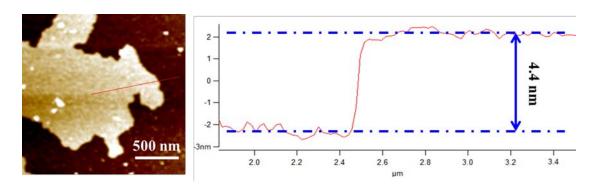


Figure S1. AFM height images of GNS.

The average thickness of GNS was determined by the MFP-3D Origin AFM (Oxford Instruments Co.; USA), which is shown in Figure S1. As shown in Figure S1, the average thickness of GNS is 4.4 nm.