Supplemental Information

Electrospinning Graphene – Retention of Anisotropy

Qi Li,[†,§] Feng Yan,[†] and John Texter*[,†,‡]

[†]*Department of Polymer Science and Engineering, College of Chemistry, Chemical Engineering and Materials Science, Soochow University, Suzhou 215123, China*
[‡]*Coatings Research Institute and School of Engineering, Eastern Michigan University, Ypsilanti, MI 48197, USA*
[§]*Present Address: College of Chemistry and Chemical Engineering, Nantong University, Nantong 226019, China*

Electrospinning

Our electrospinning procedure used the apparatus shown in Figs. SI-1 and SI-2. This apparatus, a QZNT-E01 electrospinning system, was obtained from Foshan Guangzi Precision Measurement and Control Technology Co. Ltd. (model QENZ-E01, Foshan, China).

An adjustable high-voltage DC power supply is illustrated resting on top of the safety chamber illustrated in Fig. SI-1. A syringe drive and collector rotational controls are illustrated on the lower front panel of this safety cabinet. Aluminum foil is wrapped around the motor-driven roller **4** in Fig. SI-2 to serve as current collector. The needle holder assembly **2** in Fig. SI-2 sits atop a drive **3** that rasters the needle assembly back and forth a distance of about 10 cm.

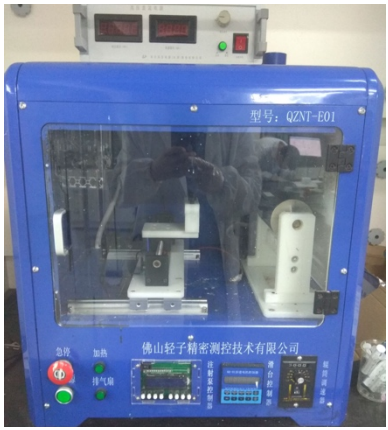

Figure SI-1. Photograph of QZNT-E01 electrospinning apparatus. Front view of apparatus cabinet (safety enclosure) and front control panel and digital high-voltage supply illustrated resting on top of cabinet. Through the front window are visible the cylindrical collector drive on right, the needle holder and back and forth rastering-assembly (middle), and syringe drive partially visible in upper left corner of window.

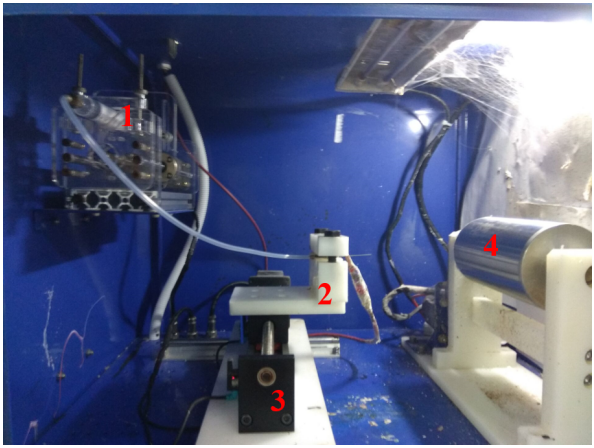

Figure SI-2. Photograph of interior of electrospinning apparatus. (**1**) Syringe drive assembly with syringe in place and tubing connecting syringe to needle; (**2**) needle holder assembly with needle in place and connected via tubing to syringe; (**3**) rastering drive for moving needle holder assembly back and forth; (**4**) rotating collector cylinder with drive motor only partially visible behind rear plastic cylinder mounting support.