

Supplementary information

Enhanced thermoelectric properties exhibited by unreduced freestanding graphene oxide/carbon nanotube membranes

Md. Saidul Islam,^{a,b} Hitomi Ohmagari,^{a,c} Mohammad Atiqur Rahman,^a Yuta Shudo,^a Masahiro Fukuda,^a Junyu Yagyu,^a Yoshihiro Sekine,^{a,d} Leonard F. Lindoy,^e Shinya and Hayami^{*a,b}

^aDepartment of Chemistry, Faculty of Advanced Science and Technology, Kumamoto University, 2-39-1 Kurokami, Kumamoto 860-8555, Japan

^bInstitute of Industrial Nanomaterials (IINa), Kumamoto University, 2-39-1 Kurokami, Kumamoto 860-8555, Japan

^cCollege of Science and Engineering, Aoyama Gakuin University, 5-10-1 Fuchinobe, Chuo-ku, Sagami-hara, Kanagawa 252-5258, Japan

^dPriority Organization for Innovation and Excellence, Kumamoto University, 2-39-1 Kurokami, Chuo-ku, Kumamoto 860-8555, Japan.

^eSchool of Chemistry F11, The University of Sydney Sydney, New South Wales 2006 (Australia)

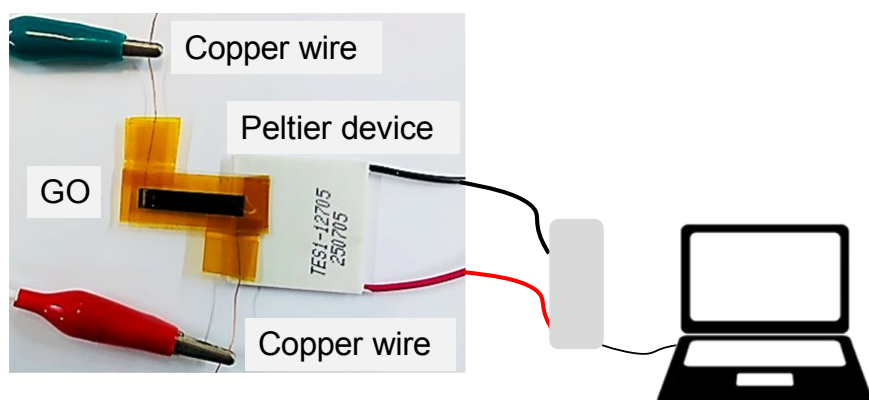


Figure S1: Experimental setup for Seebeck coefficient measurement.

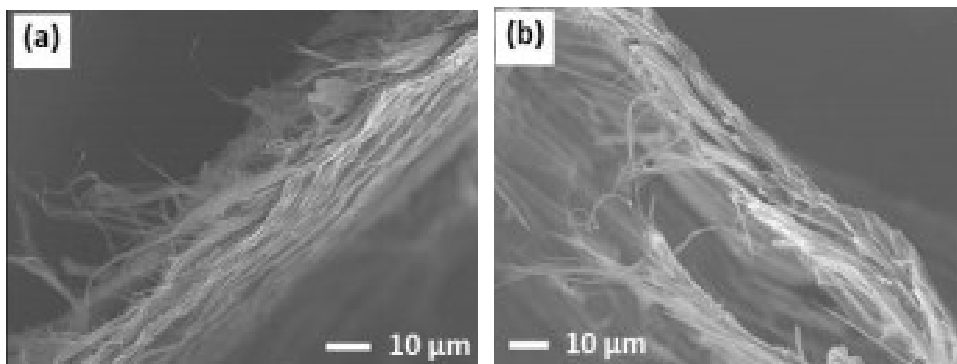


Figure S2: SEM images for a) GO/CNT (1:0.5) and b) GO/CNT (1:1)

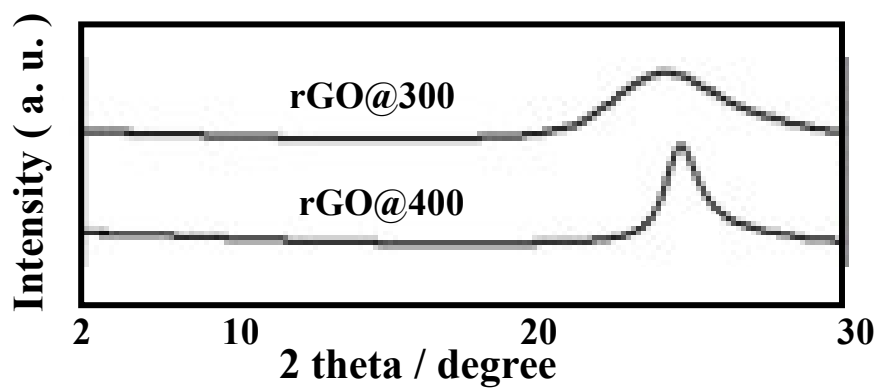


Figure S3: XRD patterns for rGO following its reduction at 300 and 400 $^{\circ}\text{C}$

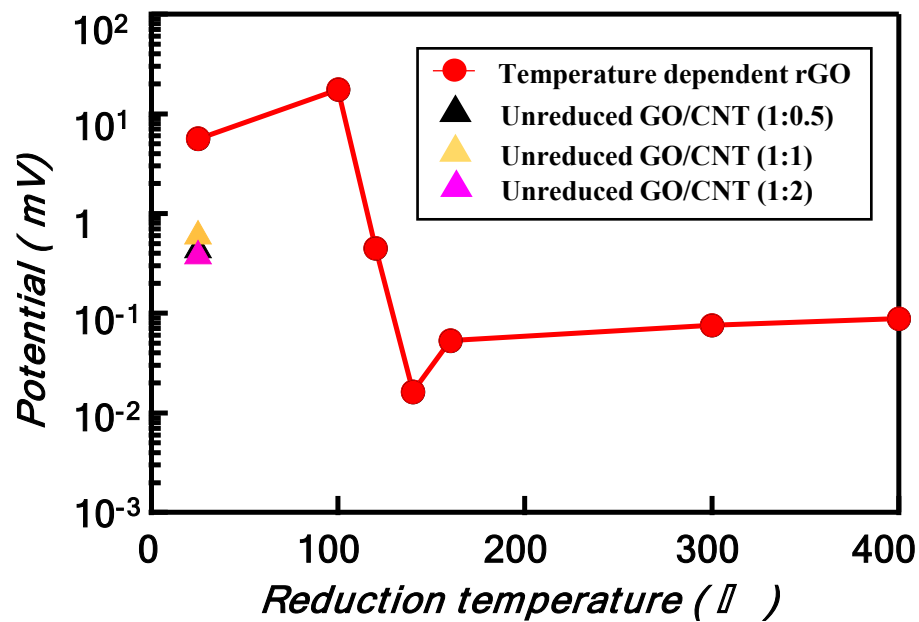


Figure S4: The thermo-voltages measured across the two ends by heating one end of GO, rGO (100-400 °C) and GO/CNT (1:0.5, 1:1, and 1:2) weight ratio.