

## Electronic Supplementary Information (ESI)

# Large-Diameter Light-Scattering Complex Multipodal Nanotubes with Graded Refractive Index: Insights into their Formation Mechanism and Photoelectrochemical Performance

Mostafa M. Omar,<sup>a b</sup> Samar M. Fawzy,<sup>b</sup> Adel B. El-Shabasy,<sup>a</sup> and Nageh K.  
Allam<sup>b,\*</sup>

<sup>a</sup>Mechanical Design and Production Department, Faculty of Engineering, Ain Shams University, Cairo, Egypt.

<sup>b</sup> Energy Materials Laboratory (EML), School of Sciences and Engineering, The American University in Cairo, New Cairo 11835, Egypt \*E.mail: [nageh.allam@aucegypt.edu](mailto:nageh.allam@aucegypt.edu)

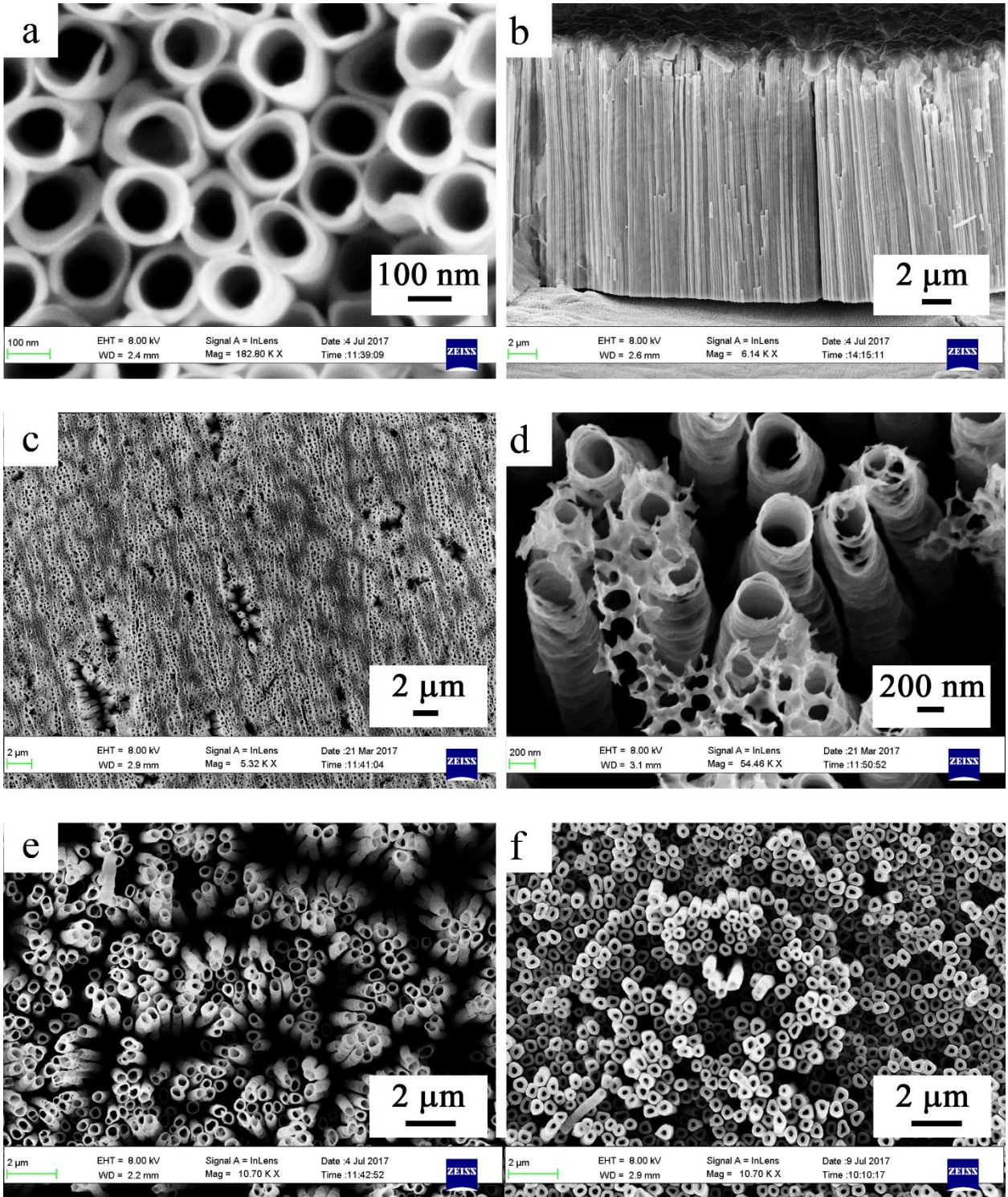


Figure S (a,b) Top and cross-sectional view FESEM images of the compact NTs fabricated by anodization for 2 hours at 60 V. (c) Compact oxide layer formed on the top of the NTs, (d) Remnants of the compact oxide layer after dissolution. (e,f) Originally fabricated MPNTs at 100 V (e) before, and (f) after sonication.