Supporting Information

Effects of different electrolytes and film thicknesses on structural and thermoelectric properties of electropolymerized poly(3,4-ethylenedioxythiophene) films *Yuhei Seki,¹ Momoko Takahashi,¹ Masayuki Takashiri^{1,*}*

¹ Department of Materials Science, Tokai University, 4-1-1 Kitakaname, Hiratsuka, Kanagawa 259-1292, Japan

*Correspondence and requests for materials should be addressed to M.T. (email: <u>takashiri@tokai-u.jp</u>).



Fig. 1S Low magnification SEM images of the surface morphology of PEDOT films produced using different electrolytes and electropolymerization times. (a) Water/methanol-10 s, (b) water/methanol-480 s, (c) acetonitrile-10 s, and (d) acetonitrile-480 s. A number of pores appeared in the film produced using the water/methanol electrolyte as the electropolymerization time increased. On the other hand, many wrinkles appeared on the surface of the film produced using the acetonitrile electrolyte as the electropolymerization time increased.