

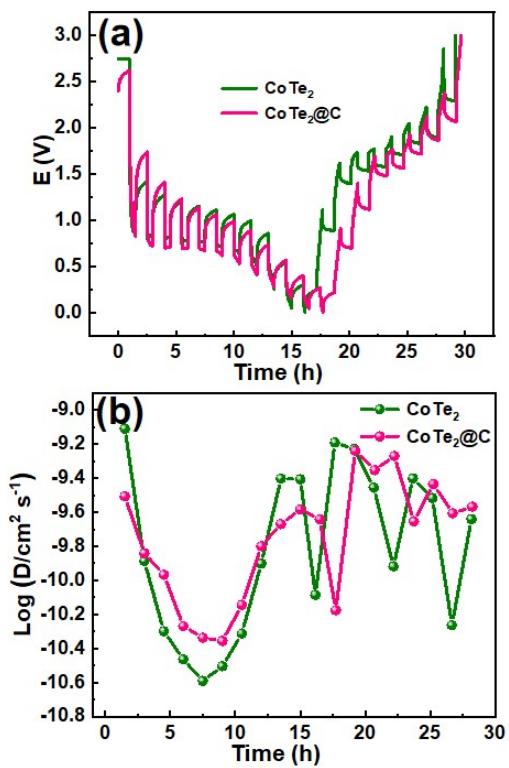
# **One-dimensional CoTe<sub>2</sub> nanorods combine with optimal carbon layer for fast and robust potassium storage**

Jiajia Ye<sup>a,\*</sup>, Zifan Wang<sup>a,\*</sup>, Yukun Zhang<sup>b</sup>, Wensi Li<sup>a</sup>, Jiaxu Qi<sup>a</sup>, Li Han<sup>a</sup>

<sup>a</sup> College of Biological and Chemical Engineering, Qilu Institute of Technology, Jinan  
250200, PR China

<sup>b</sup> Key Laboratory for Liquid-Solid Structural Evolution and Processing of Materials  
(Ministry of Education), School of Materials Science and Engineering, Shandong  
University, Jinan 250061, Shandong, China

\*E-mail: yejj0727@qlit.edu.cn (J.J. Ye), wangzifan@qlit.edu.cn (Z.F Wang)



**Fig. S1** (a) GITT potential profiles and (b) diffusion coefficients of K-ion for the CoTe<sub>2</sub> and CoTe<sub>2</sub>@C anodes.