Electronic Supplementary Information

High-performance supercapacitor of vertically-oriented few-layer graphene with high-density defects

Jun Lei Qi, Xu Wang, Jing Huang Lin, Fu Zhang, Ji Cai Feng* and Wei-Dong Fei*

State Key Laboratory of Advanced Welding and Joining, Harbin Institute of Technology, Harbin 150001, China

*Corresponding author: Tel. /fax: 86-451-86418146;

E-mail: fengjc@hit.edu.cn (J C Feng) and wdfei@hit.edu.cn(W-D Fei) ;

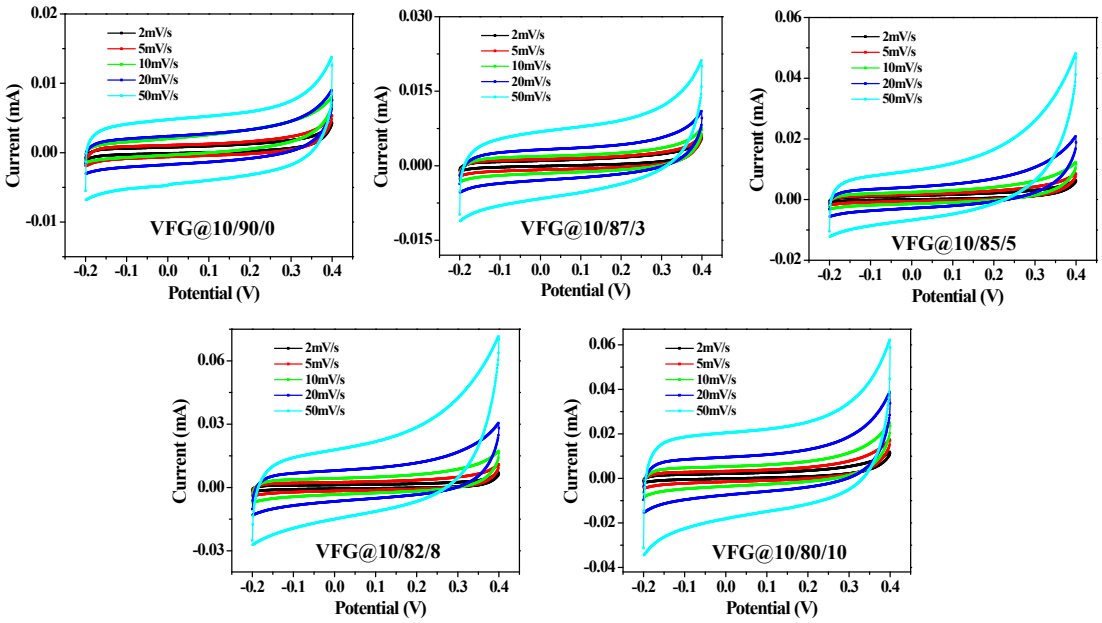

Fig. S1 the CV curves of the VFG@10/90/0, VFG@10/87/3, VFG@10/85/5, VFG@10/82/8 and VFG@10/80/10, respectively.

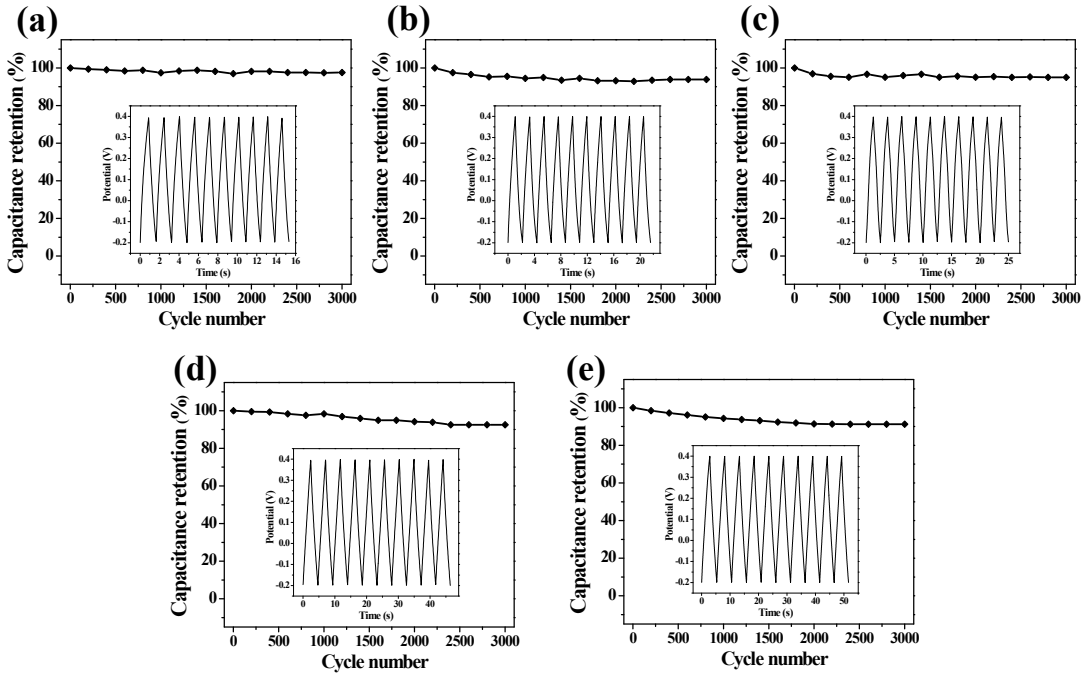

Fig. S2 Cyclic stability obtained by performing charge-discharge of the VFG supercapacitors (a.VFG@10/90/0, b.VFG@10/87/3, c.VFG@10/85/5, d.VFG@10/82/8 and e.VFG@10/80/10, respectively.) at 0.1mA/cm^2 over 3000 cycles. It is apparent that the materials retain good stability over large number of charging-discharging cycles, in which the inset is the galvanostatic charge-discharge curve of the VFG supercapacitor.