Three dimensional vertically aligned multiwall carbon nanotubes/NiCo$_2$O$_4$ core/shell structure for novel high-performance supercapacitors

Wen-wen Liu $^{a,\dagger}$, Congxiang Lu $^{a, b, \ddagger}$, Kun Liang $^a$, Beng Kang Tay $^{a, b, *}$

a. Novitas, Nanoelectronics center of excellence, School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798

b. CINTRA CNRS/NTU/THALES, Nanyang Technological University, Singapore 637553

$\dagger$ These two authors contribute equally to this work.

* Corresponding author. Tel: +65 67906783. E-mail address: ebktay@ntu.edu.sg.
**Fig.S1** Contact angle of the bare SS-supported vertically aligned CNTs (a) before and (b) after treated by O$_2$ plasma.

**Fig.S2** XRD spectrum of the SS-supported vertically aligned CNTs/NiCo$_2$O$_4$ core/shell structures.
**Fig.S3** Raman spectrum of the SS-supported vertically aligned CNTs/NiCo$_2$O$_4$ core/shell structures.

**Fig.S4** TEM of the bare SS-supported vertically aligned CNTs.
**Fig. S5** EIS spectrum of the SS-supported vertically aligned CNTs/NiCo$_2$O$_4$ core/shell structure electrode.

**Fig. S6** CV curves of the bare SS-supported vertically aligned CNTs and the SS-supported vertically aligned CNTs/NiCo$_2$O$_4$ core/shell structure electrode at 10 mV·s$^{-1}$. 
**Fig. S7** SEM image of the SS-supported vertically aligned CNTs/NiCo$_2$O$_4$ core/shell structure electrode after 1500 cycles at the density of 4 A·g$^{-1}$. 