Electronic Supplementary Material (ESI) for Nanoscale Advances.

Supporting information

Functionalized Germanane/SWCNTs Hybrid Films as Flexible Anodes for Lithium-ion Batteries

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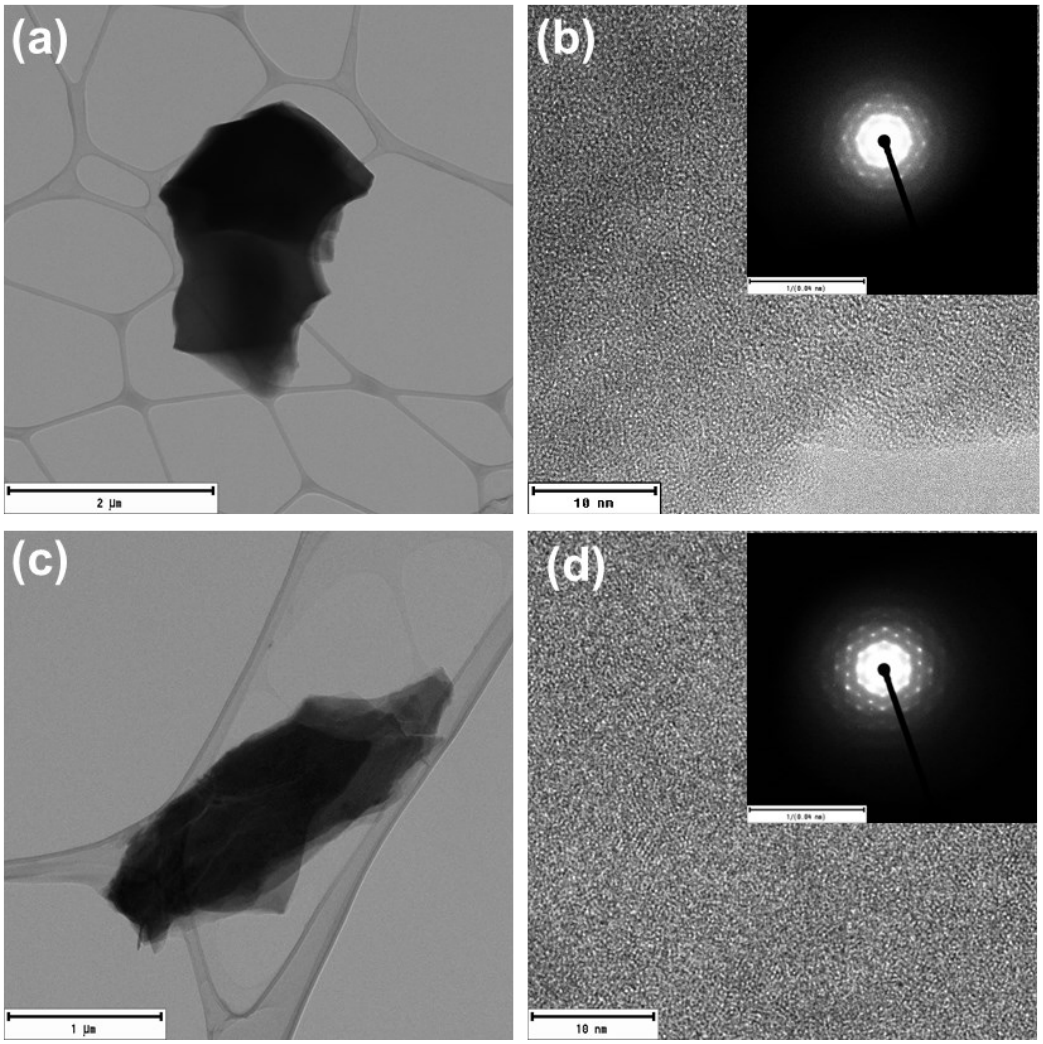

Figure S1. TEM and SAED of GeH (a-b) and $GeCH_3$ (c-d)

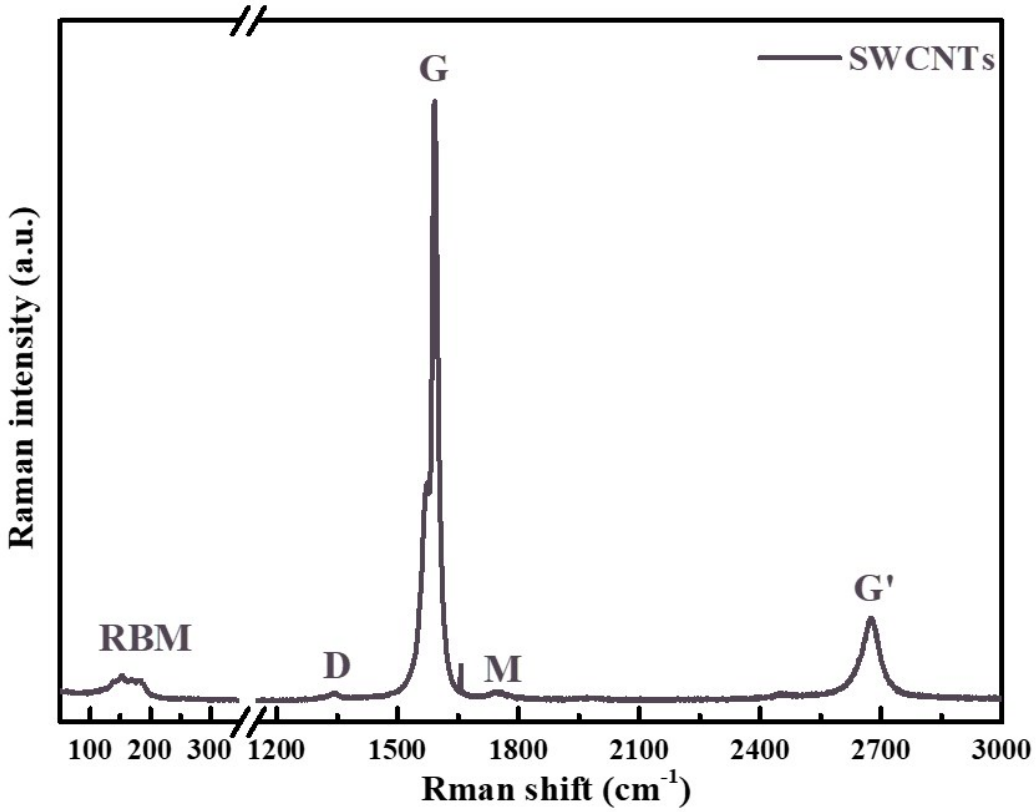

Figure S2. The Raman spectrum of SWCNTs.

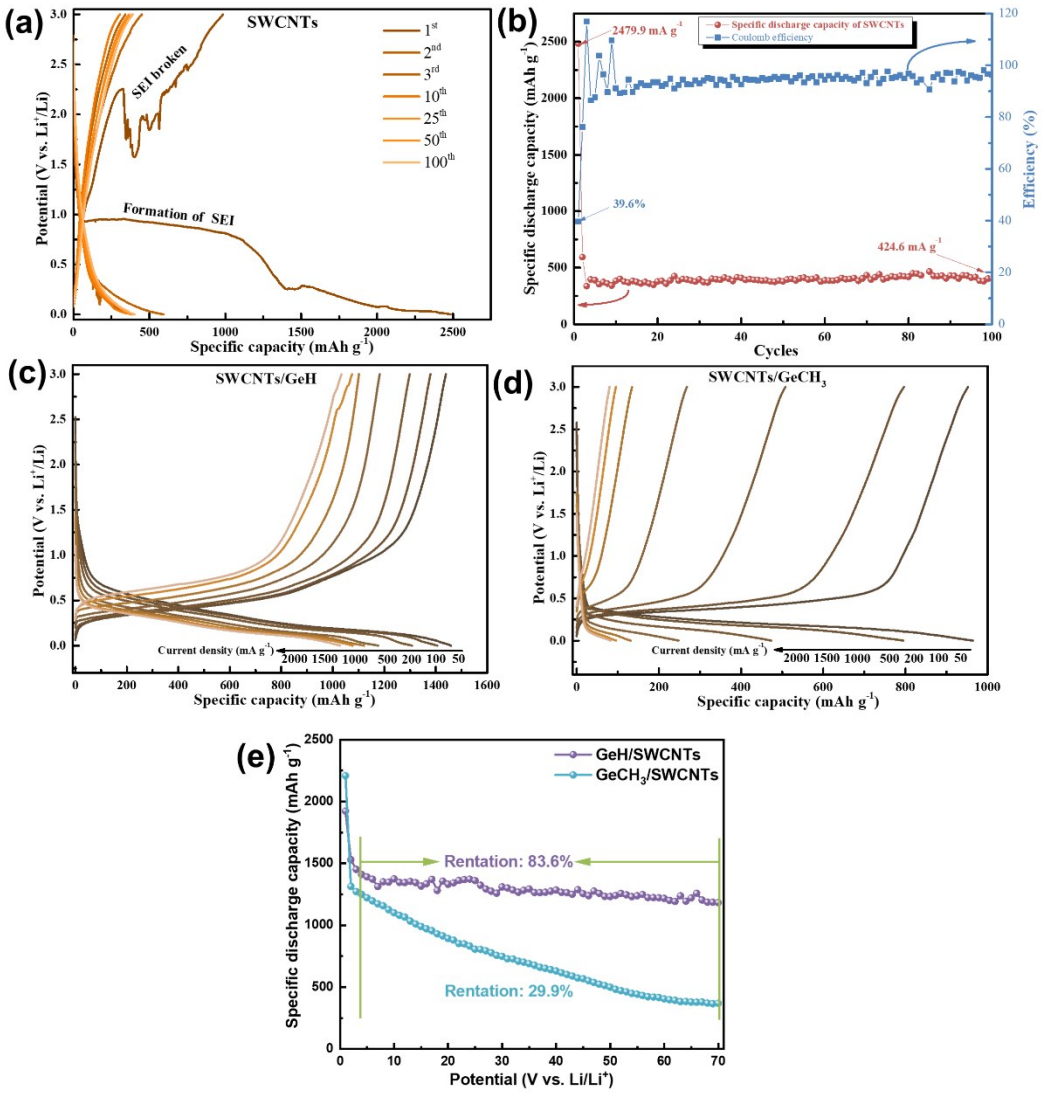

Figure S3. (a) and (b) Cycling performance of SWCNTs; C/DC curves of (e) GeH/SWCNTs and (f) $GeCH_3$/SWCNTs at various current density; (e)cycling performance of GeH/SWCNTs and $GeCH_3$/SWCNTs electrode at 200 mA g^{-1}.

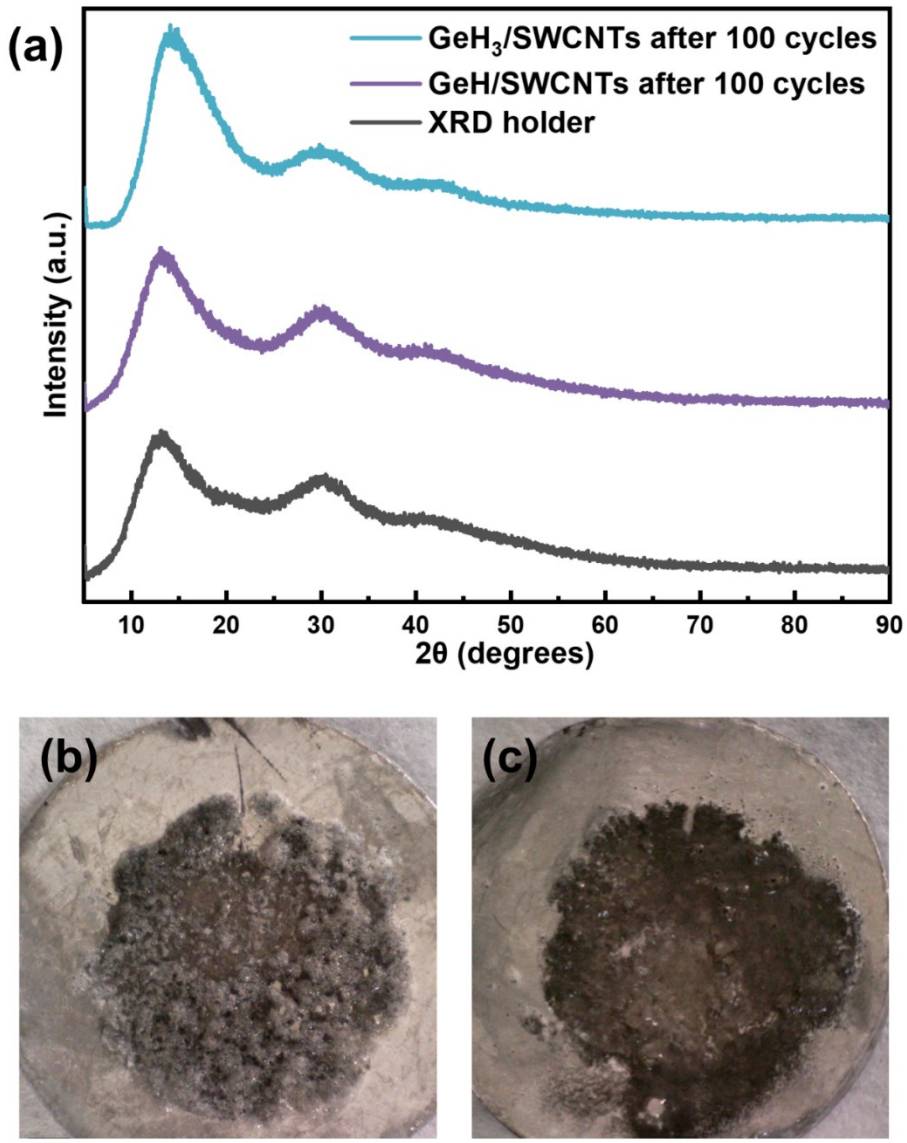

Figure S4. (a) XRD patterns of GeH/SWCNTs and $GeCH_3$/SWCNTs electrode after 100 cyclings at 500 mA g^{-1}; and the corresponding counter lithium-metal electrodes: (b) GeH/SWCNTs; (c) $GeCH_3$/SWCNTs.

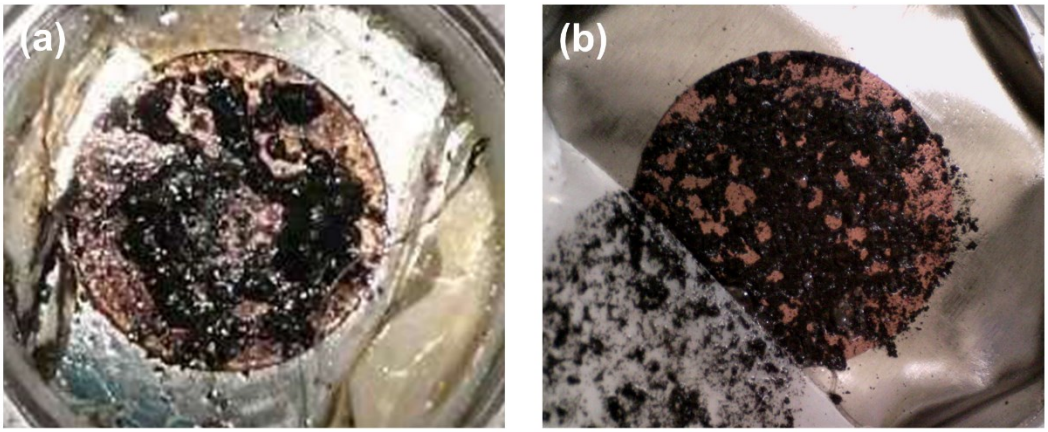

Figure S5 Images of as-prepared pure GeH and $GeCH_3$ electrodes after 100 cycles at 500 mAh g^{-1}.