[Supporting Information]

Facile one-pot synthesis of Ge/TiO_2 nanocomposite structures with improved electrochemical performance

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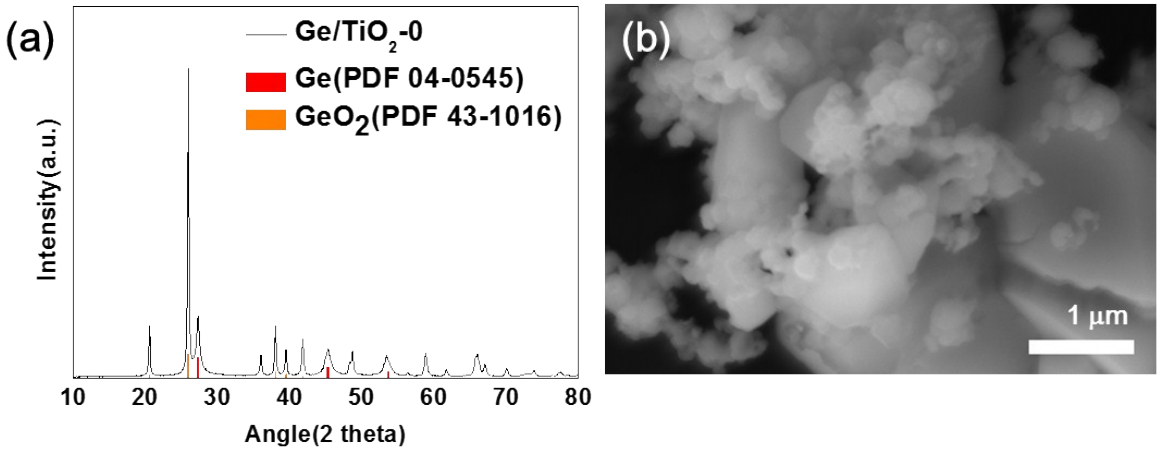

Fig. S1. (a) XRD pattern and (b) SEM image of Ge/TiO_2-0.

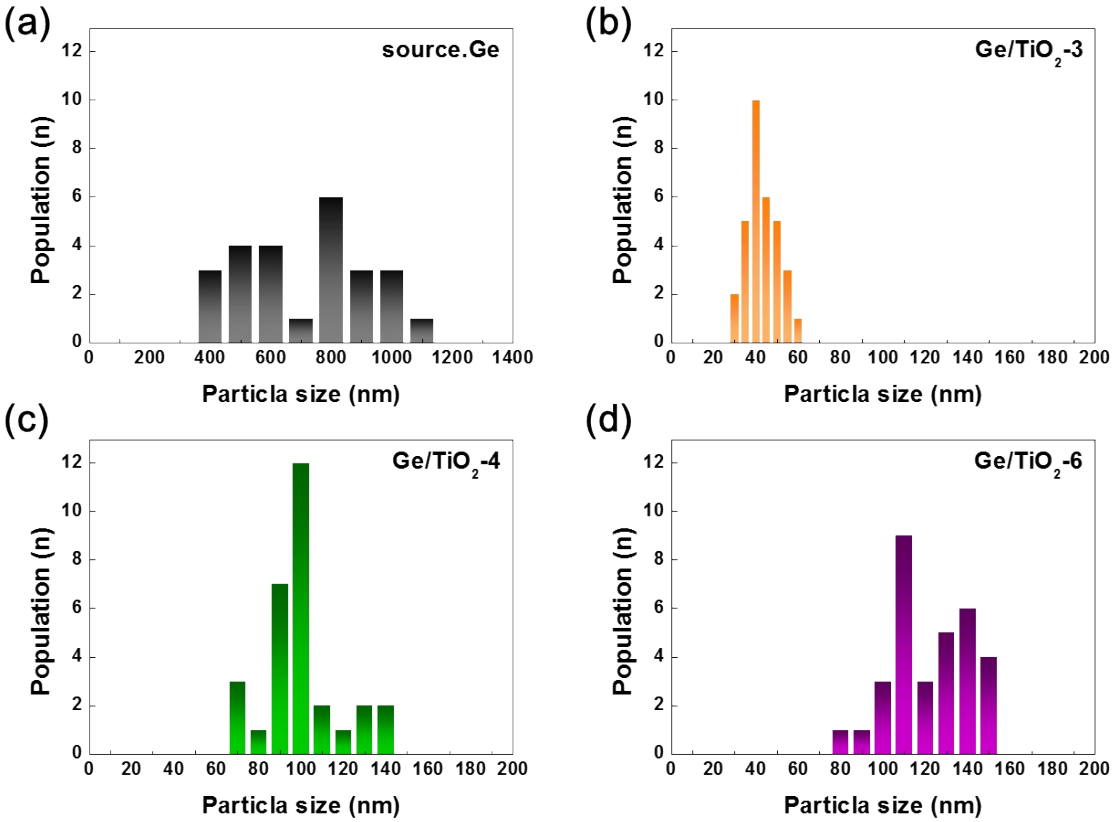

Fig. S2. Particle size distributions of (a) Ge source, (b) Ge/TiO_2-3, (c) Ge/TiO_2-4, and (d) Ge/TiO_2-6.

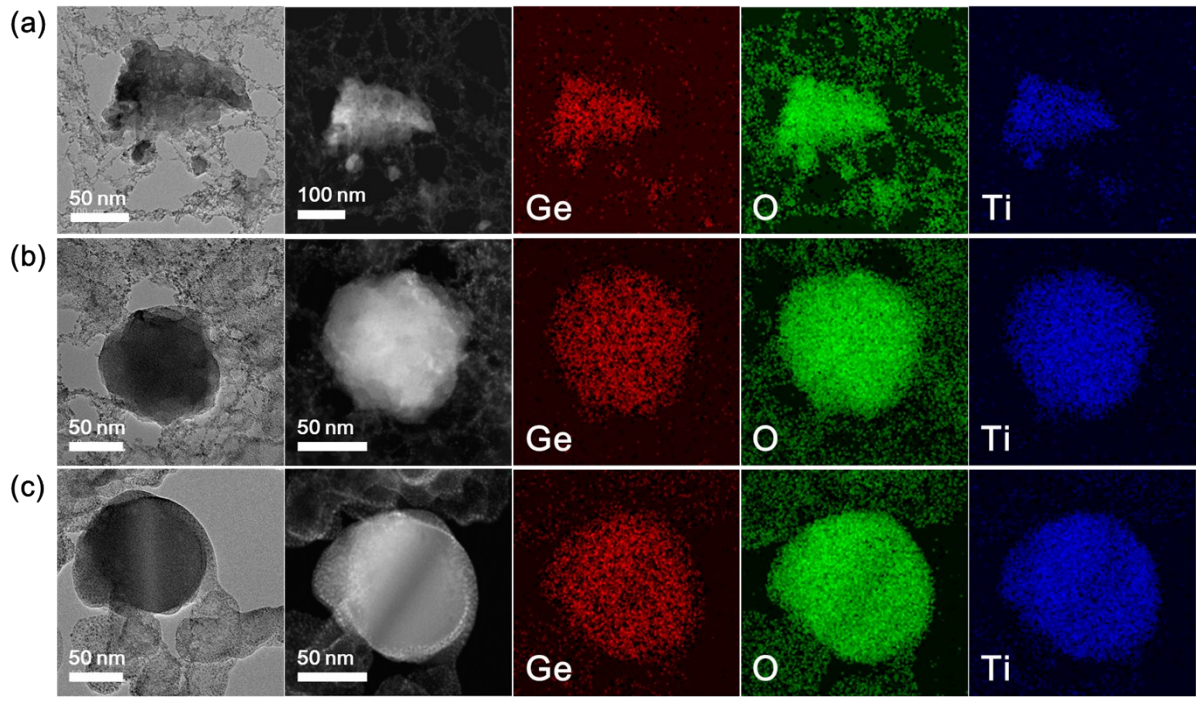

Fig. S3. CS-TEM cross-sectional and mapping images of (a) Ge/TiO_2-3, (b) Ge/TiO_2-4, and (c) Ge/TiO_2-6.

Table S1. XPS quantification of comm. Ge, Ge/TiO_2-3, Ge/TiO_2-4, and Ge/TiO_2-6

At. %	comm.Ge	Ge@TiO_2-3	Ge@TiO_2-4	Ge@TiO_2-6
Ge 3d	63	21	13	11
Ti 2p	0	15	20	21

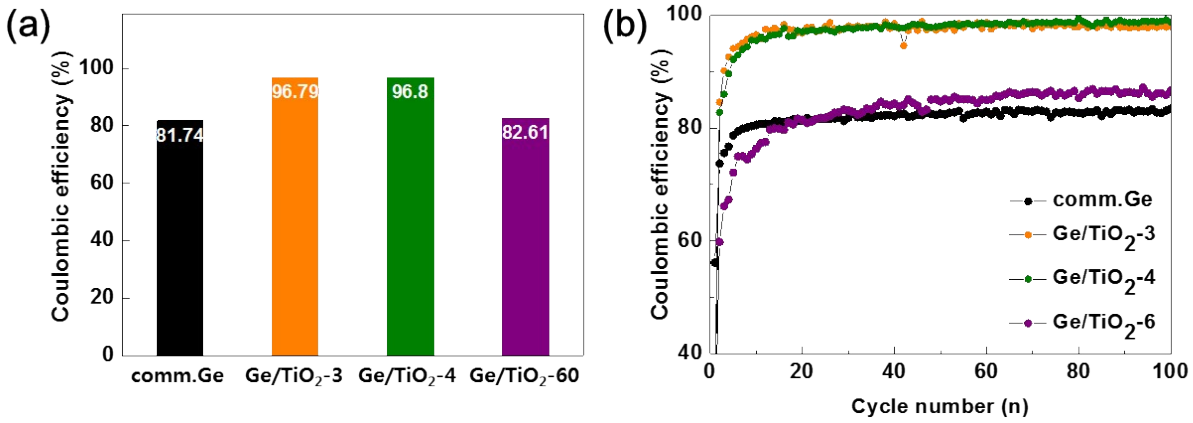

Fig. S4. (a) Coulombic efficiencies of the samples measured at a current density of 100 mA g^{-1} in the potential range of 0-2 V *vs*. Li/Li^+ at 100^{th} cycles. (b) Coulombic efficiencies vs. cycle number of the samples measured at a current density of 100 mA g^{-1} in the potential range of 0-2 V *vs*. Li/Li^+ for 100 cycles.

Table S2. ICP analysis of comm. Ge, Ge/TiO_2-3, Ge/TiO_2-4, and Ge/TiO_2-6

Wt. %	comm.Ge	Ge@TiO_2-3	Ge@TiO_2-4	Ge@TiO_2-6
Ge	100	77	63	57
Ti	0	23	37	43