Supporting Information

Unveiling Hidden Epitaxial Interfaces in Novel SnO_2/Zn_2SnO_4 Core-shell nanowires with a Multi-domain Shield via Cross-sectional Transmission Electron Microscopy

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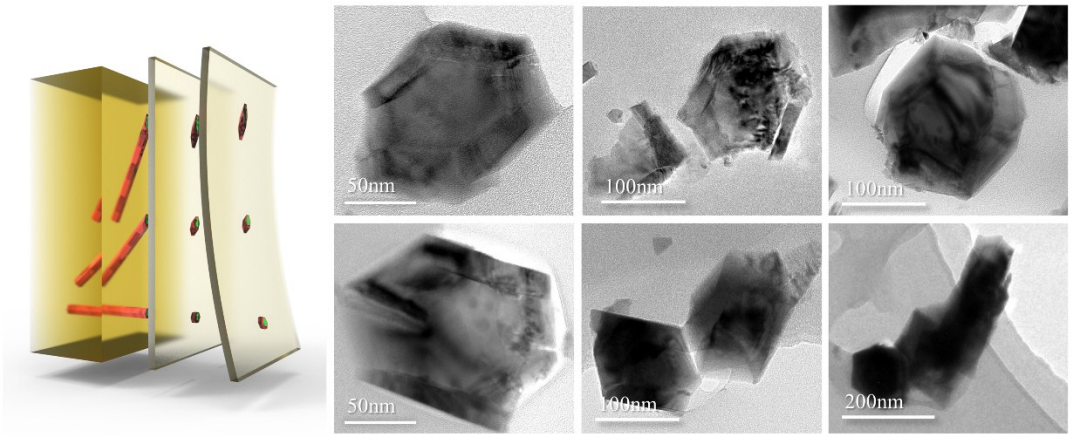

Figure S1. The embedded nanowires with different orientation, among which core-shell nanowire cross sections with quasi-hexagonal shape are noticed.

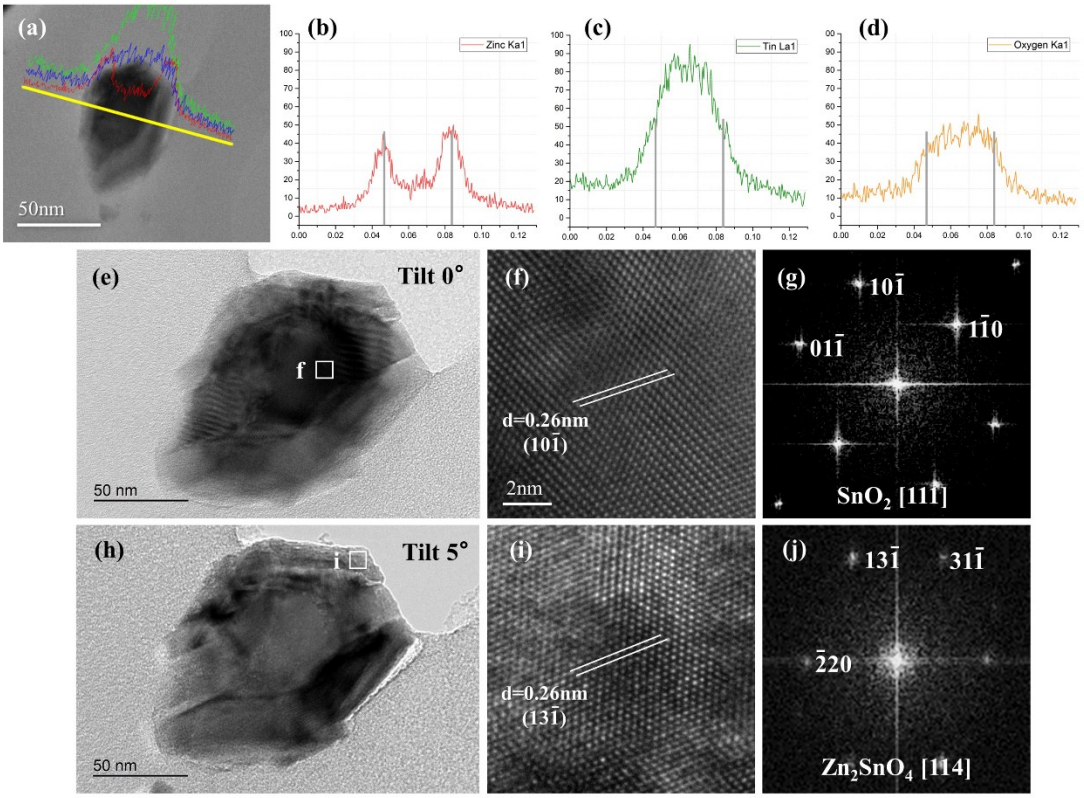

Figure S2. (a-d) EDS analysis of the cross-section sample shows the Zn-enriched shell and Sn-enriched Core; (e) Cross-section sample that the core crystal is in the main zone axis. (f) HRTEM image of the core that marked in (e); (g) Corresponding FFT pattern shows the zone axis of core is $[111]_{rutile}$; (h) The same cross-section sample that the shell crystal is in the main zone axis. (i) HRTEM image of the shell that marked in (h); (j) Corresponding FFT pattern shows the zone axis of shell is $[114]_{spinel}$.

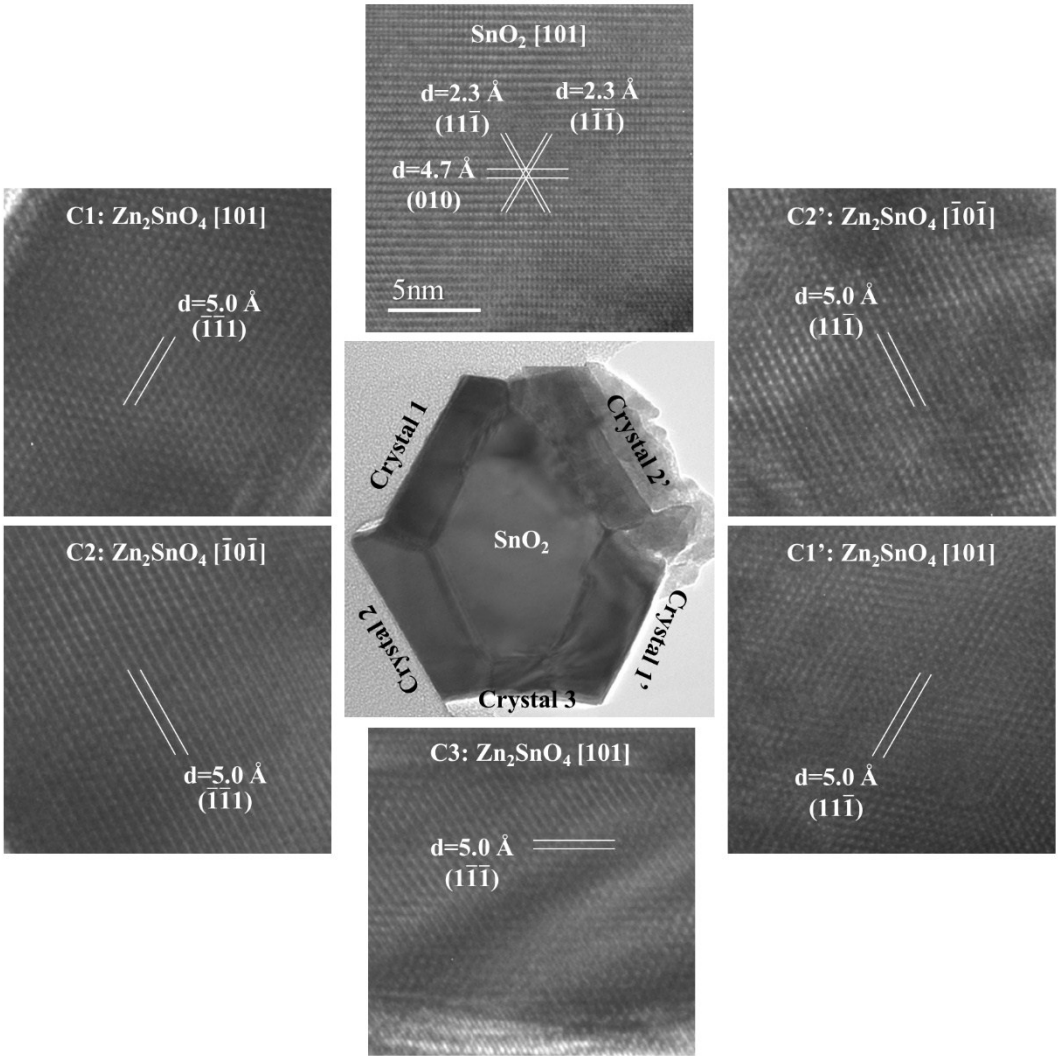

Figure S3. HRETM images of each crystal that form the core-shell structure.

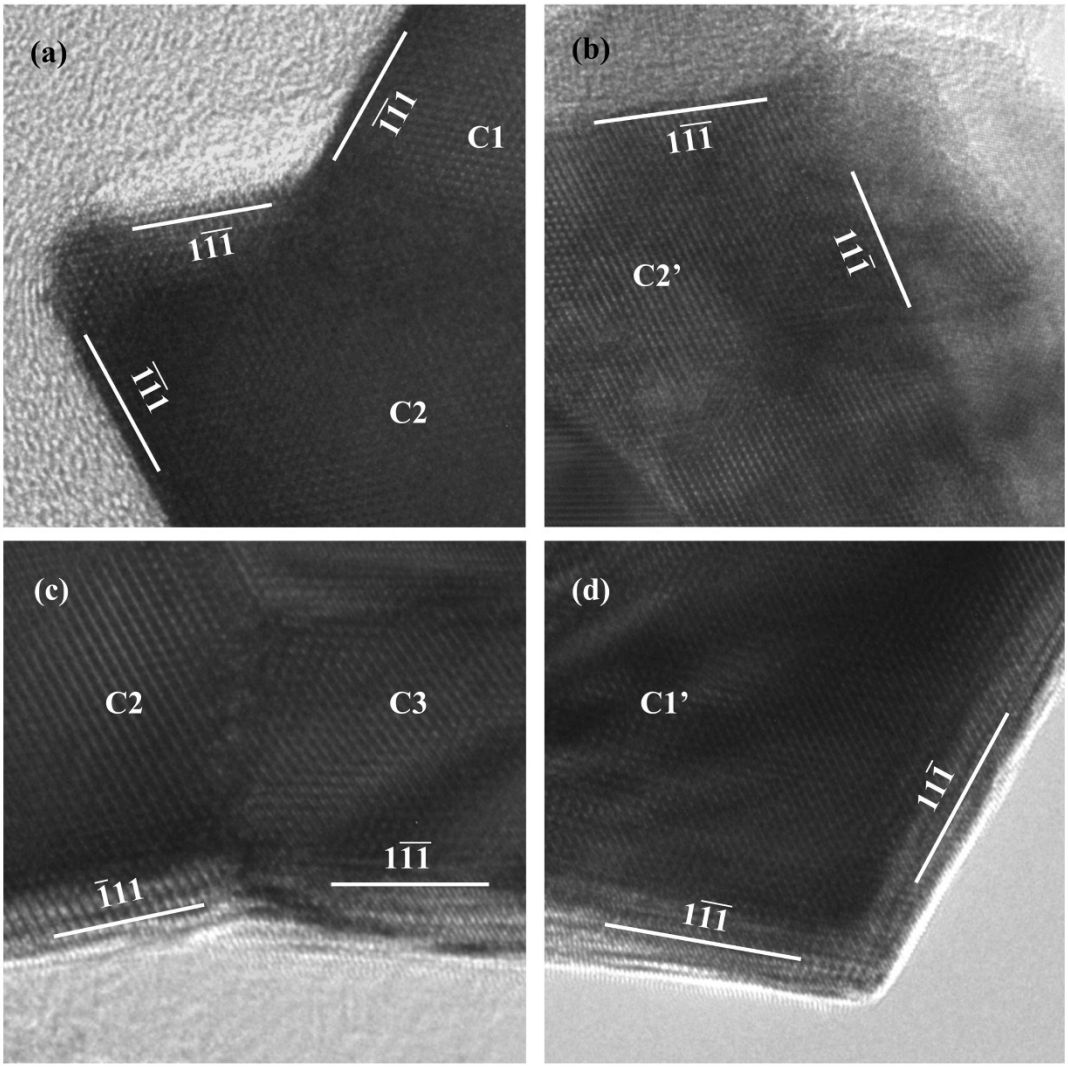

Figure S4. All Zn_2SnO_4 shell domains expose their {111} plane.