

Supporting Information

Separators with Biomineralized Zirconia Coatings for Enhanced Thermo- and Electro-Performance of Lithium Ion Batteries

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XPS spectra

XPS spectra of all separators are shown in Figure S1. Peak present at 180 eV originate from Zr 3d5. The presence of zirconium and the high peak intensity for O 1s in the XPS spectrum substantiate the formation of ZrO₂ coating.

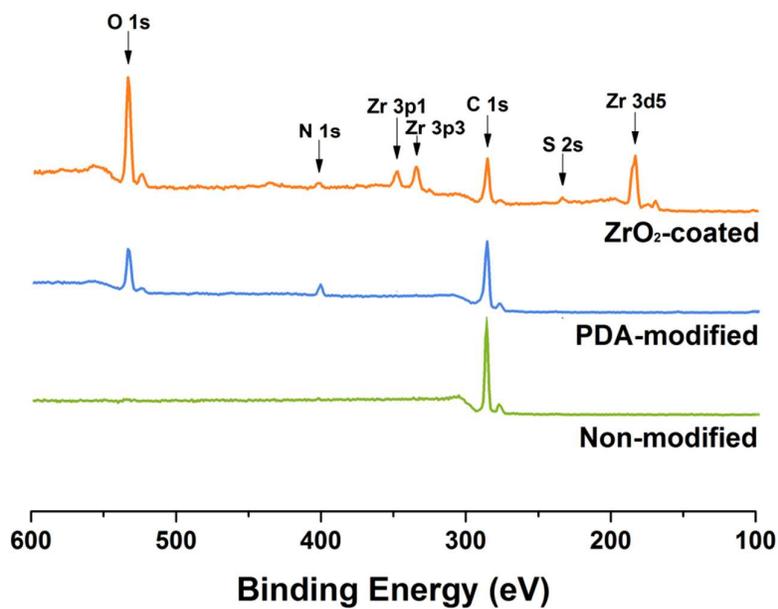


Figure S1. XPS spectra of the studied separators.

SEM and EDX images

SEM image and its corresponding EDX map of Zr element are shown in Figure S2. EDX map of Zr element indicates that ZrO₂ coating is fabricated on separator surface uniformly.

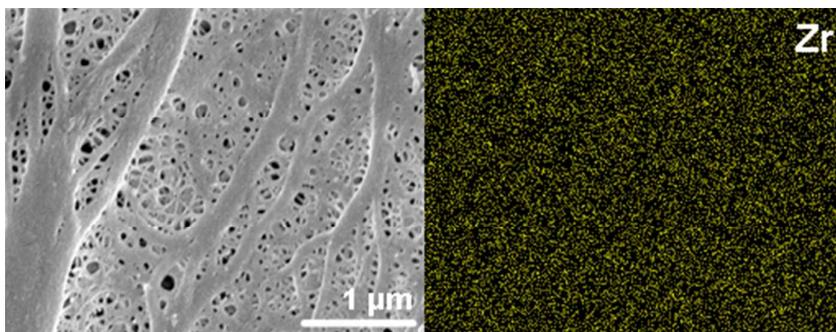


Figure S2. SEM and Zr element distribution images of ZrO₂-coated separator.