Supporting Information

Alpha-MoO_3 Nanobelts: A High Performance Cathode Material for Lithium Ion Batteries

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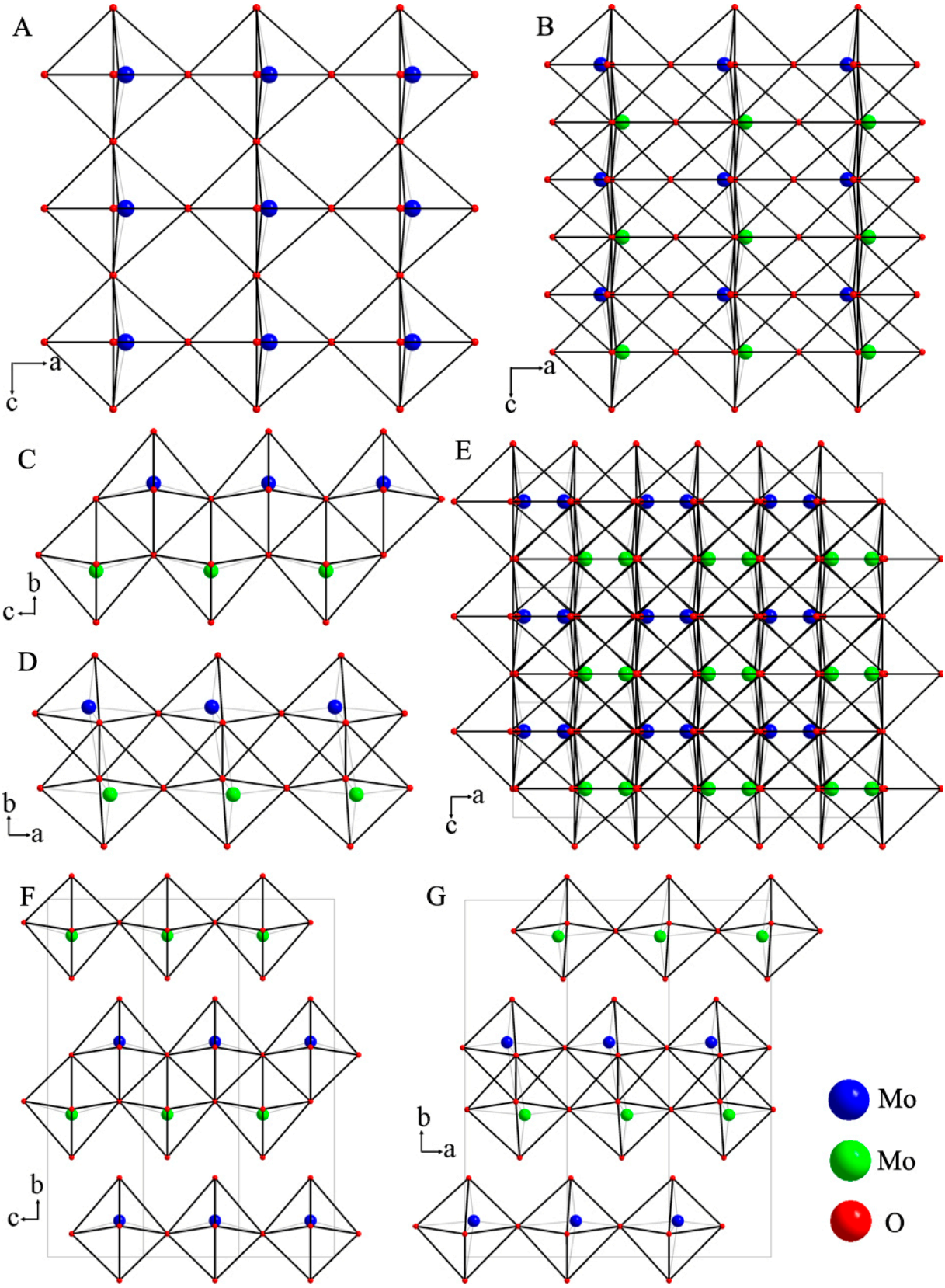

Figure S1. Structure model of α-MoO_3 sublayer from [010] direction (A); α-MoO_3 single layer from [010] (B), [100] (C), [001] (D) direction; and α-MoO_3 layered structure from [010], [100], [001] direction.

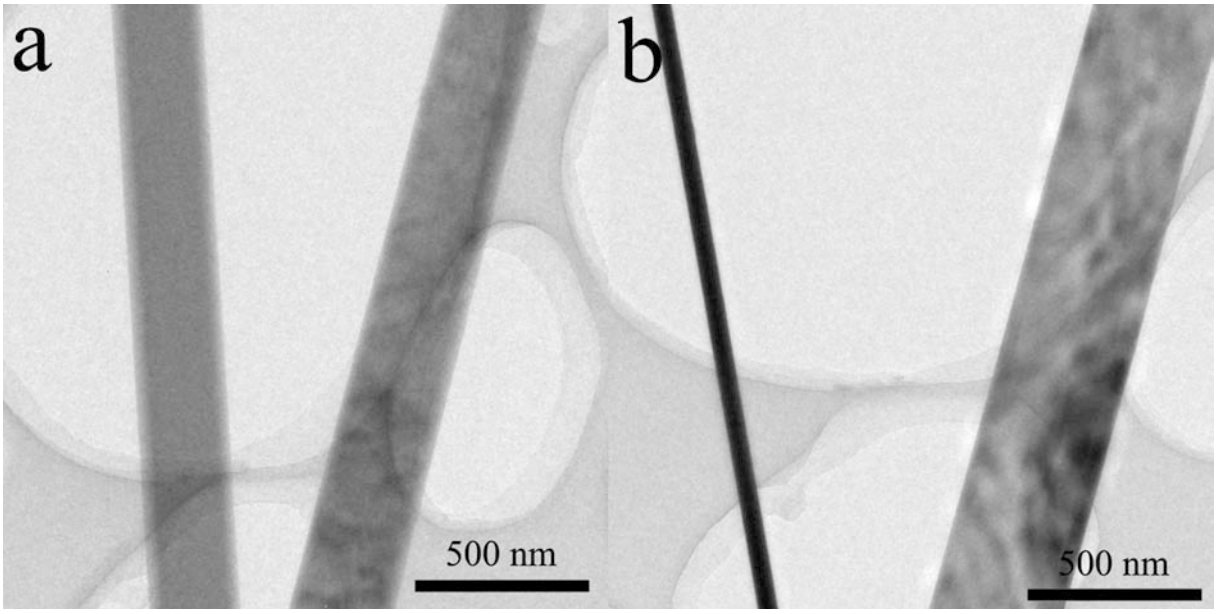

Figure S2. TEM images of α-MoO_3 nanobelts. A and b are from the same region but with different tilting angles. From tilting, the thickness of the nanobelts can be determined to be ~ 50 nm.

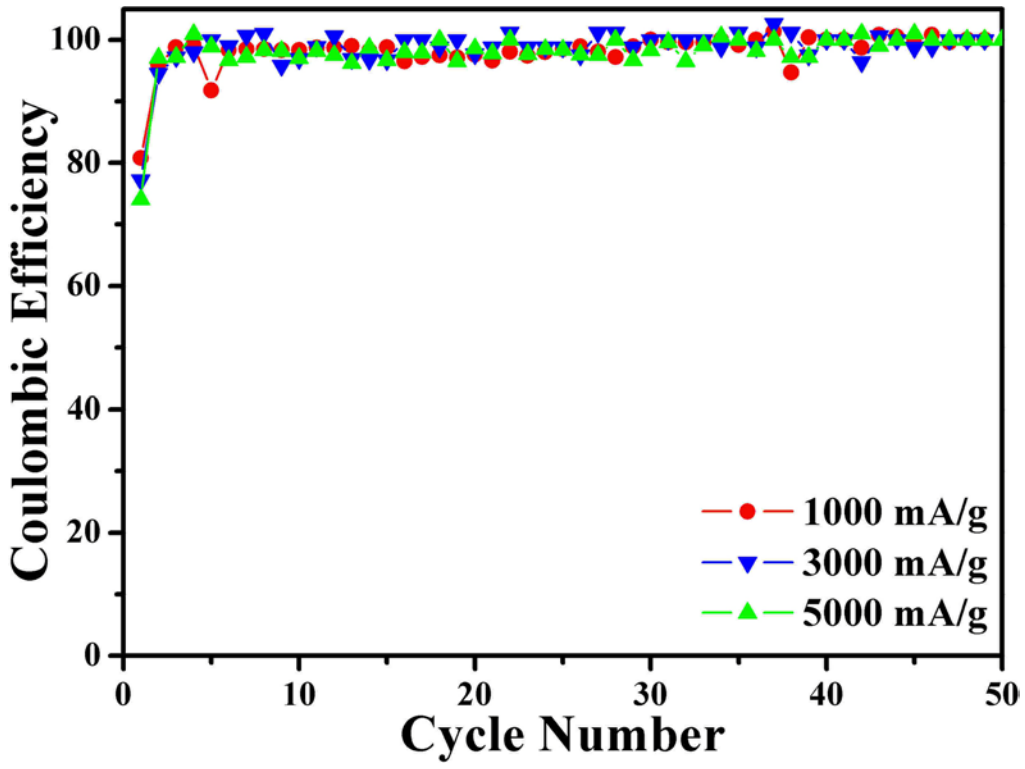

Figure S3. Coulombic efficiency versus cycle number under different current densities. Unlike most other cathode materials, the coulombic efficiency is defined as the ratio of charge capacity to discharge capacity here.

Safety issue:

In the case of lithium metal as anode or counter electrode, it should be small, not larger than 5 cm^2, or else, the safety problem related to lithium dendrites should be fully checked during cycling. When it is too large, more measures should be taken to avoid possible safety problems such as fire or explosion during cycling.