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Supporting information

Synthesis of porous $CoMoO_4$ nanorods as a bifunctional cathode catalyst for Li-O_2 battery and superior anode for Li-ion battery

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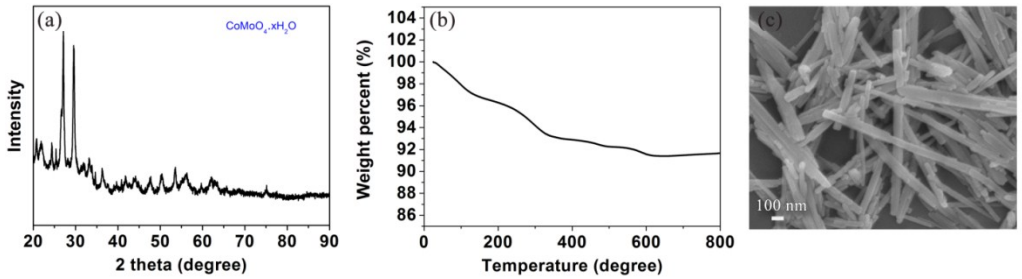

Fig. S1 (a) XRD pattern, (b) TGA curve and SEM image of $CoMoO_4$ precursor before annealing.

TGA analysis: The first weight loss below 100 ℃ is due to the release of physi-/chemi-sorbed water at or within the surface while the second loss between 200 ℃ and 300 ℃ can be ascribed to be evolution of crystal water from hydrate crystal phase. The third loss, which starts from 350 ℃, can be assigned to the release of water from $CoMoO_4$ phase, as the hydrate crystal structure has converted into $CoMoO_4$ phase under this temperature range.[1-2]

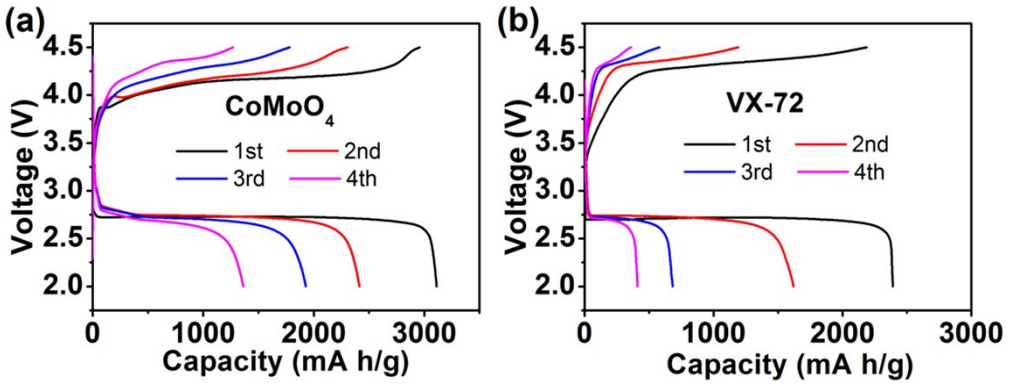

Fig. S2 Full discharge/charge cycling performance of (a) $CoMoO_4$ nanorods and (b) VX-72 carbon based Li-O_2 batteries at a current density of 0.16 mA/cm^2.

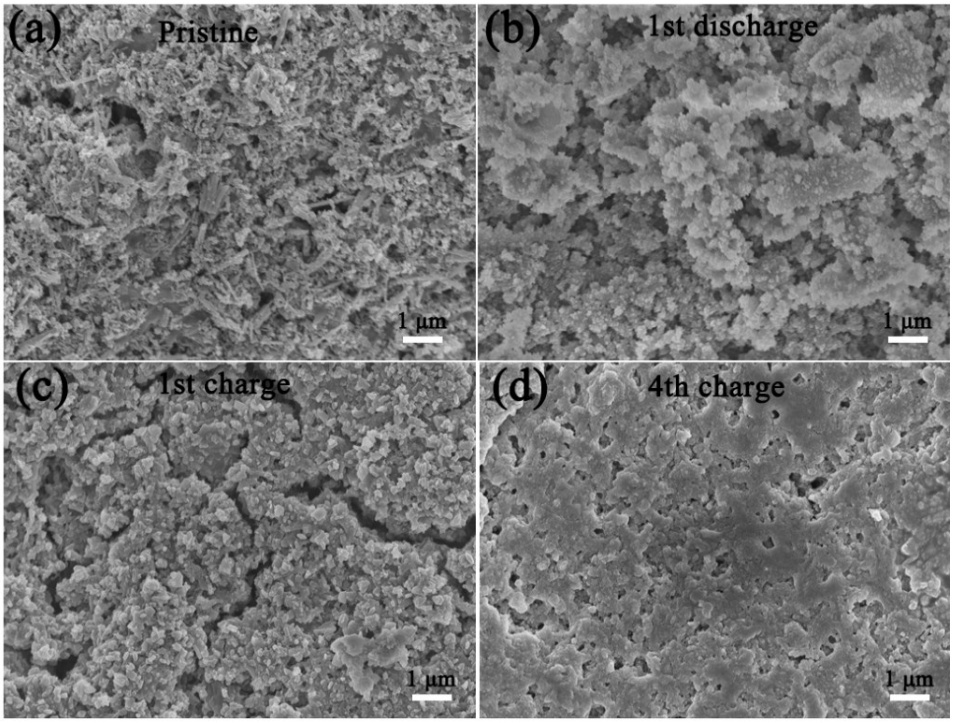

Fig. S3 SEM images of CoMoO4 electrode at (a) pristine, (b) 1st discharge, (c) first charge and (d) 4th charge states.

REFERENCES

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