## Supplemental Information for

## V-VO<sub>2</sub> Core-shell Structure for Potential Thermal Switching

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Fig. S1, Fig. S2 and Fig. S3.



Fig. S1: Reported (a) thermal conductivity, and (b) electrical conductivity of different VO<sub>2</sub>



**Fig. S2:** XRD pattern of polished surface of V bar sample annealed at 350 °C + 380 °C + 425 °C for 7+7+7 hour.



**Fig. S3:** SEM image of V-VO<sub>2</sub> sample annealed at 350 °C + 380 °C + 425 °C for 7+7+7 hour, showing the isolation of V particle separated by VO<sub>2</sub>.