Supplementary Information

Thermal conductivity enhancement and shape-stabilization of phase change materials using three-dimensional graphene and graphene powder.

Thermal conductivity enhancement and shape-stabilization of phase change materials using three-dimensional graphene and graphene powder. The temperature profiles of 3DC_LPCM, GPPCM and neat paraffin samples for all nine cycles in the environmental test chamber is shown in Figure S1. It was observed that GPPCM initially had a similar temperature profile as 3DCPCM, and started to deviate towards the temperature profile of paraffin wax from the 2nd cycle. Temperature fluctuation was observed during the heating portion of thermal cycling for GPPCM from the 7th cycle, indicating that there was irregular melting in the GPPCM sample, liken to that of paraffin wax for all heating portion of thermal cycling.

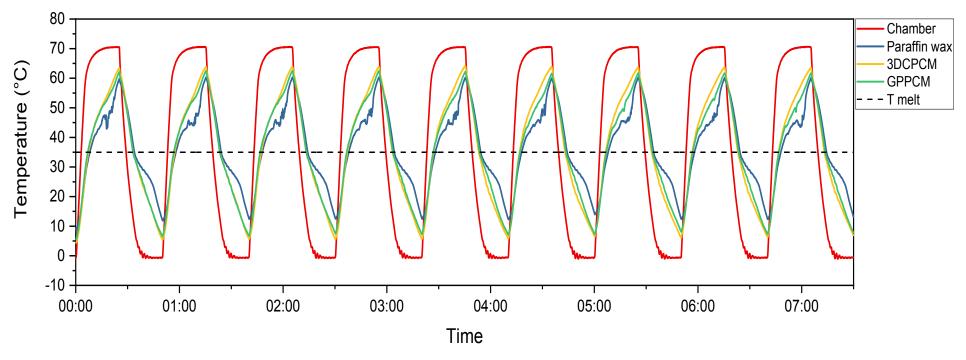


Figure S1. Temperature profile of all nine cycles of thermal cycling for $3DC_LPCM$, GPPCM and neat paraffin samples.