

## Supplementary materials for

# Investigating the effect of adding hybrid nanoparticles, graphene and boron-nitride nano-sheet, to octadecane on its thermal properties

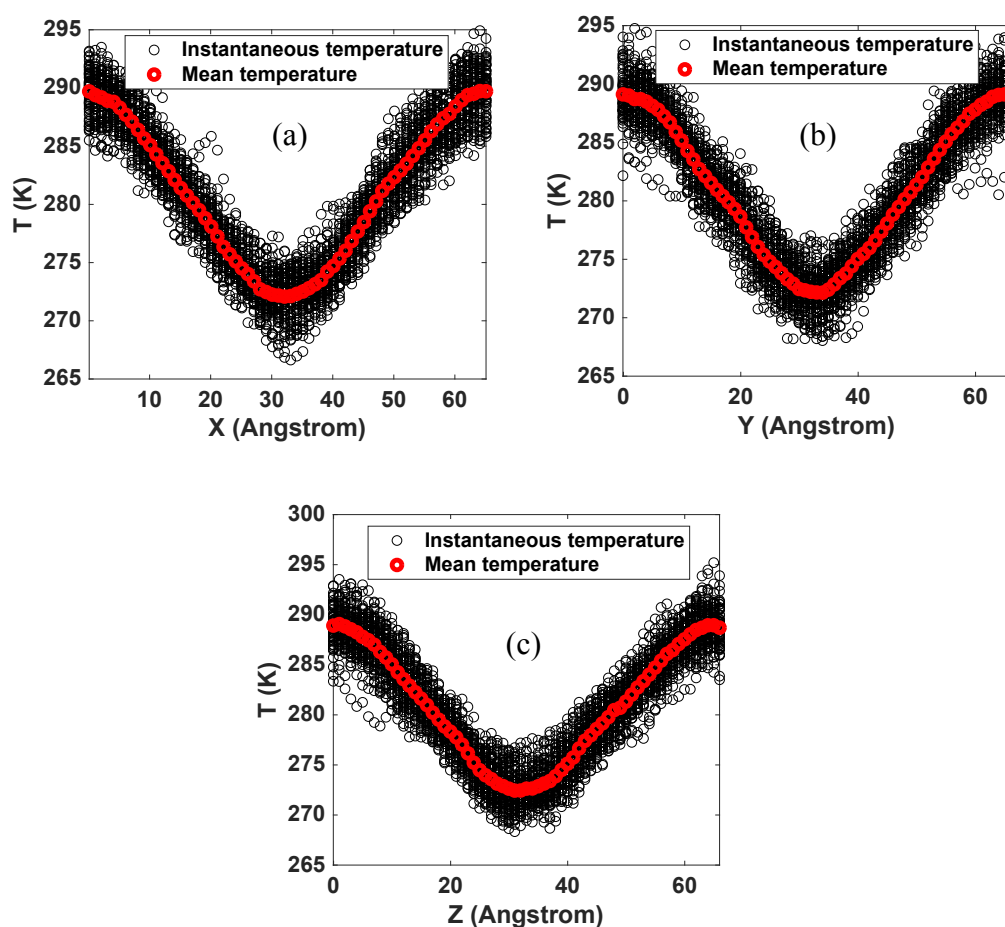
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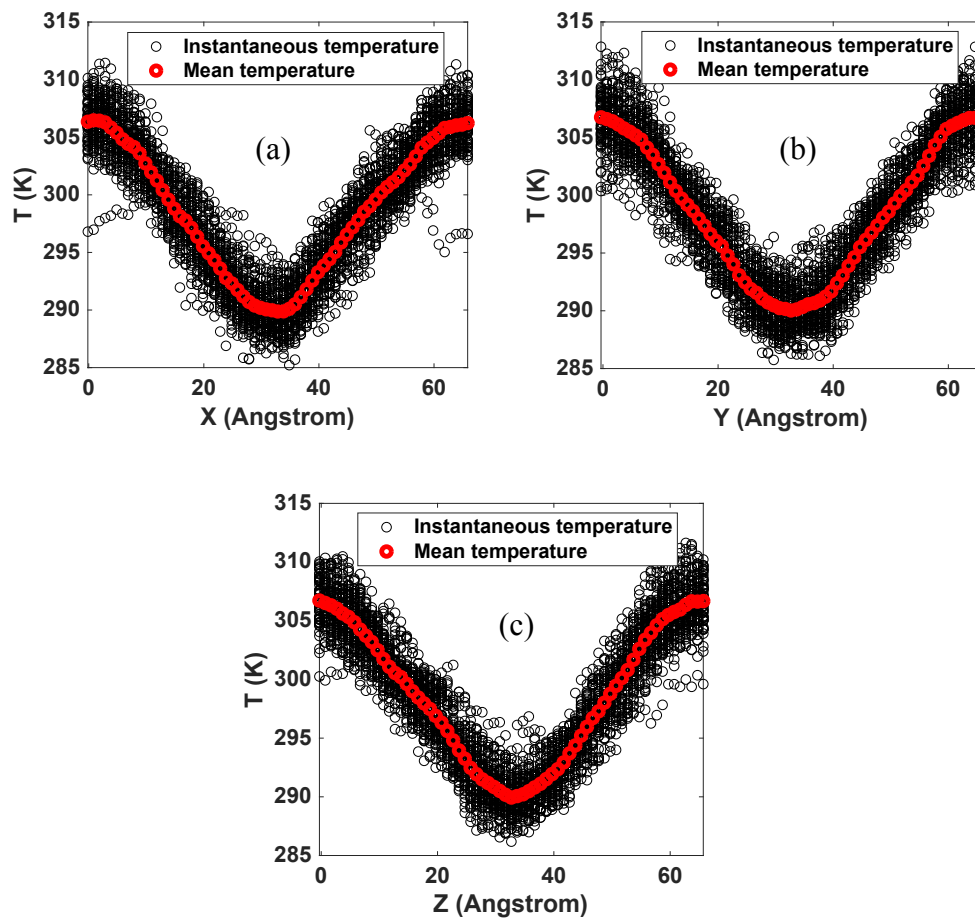
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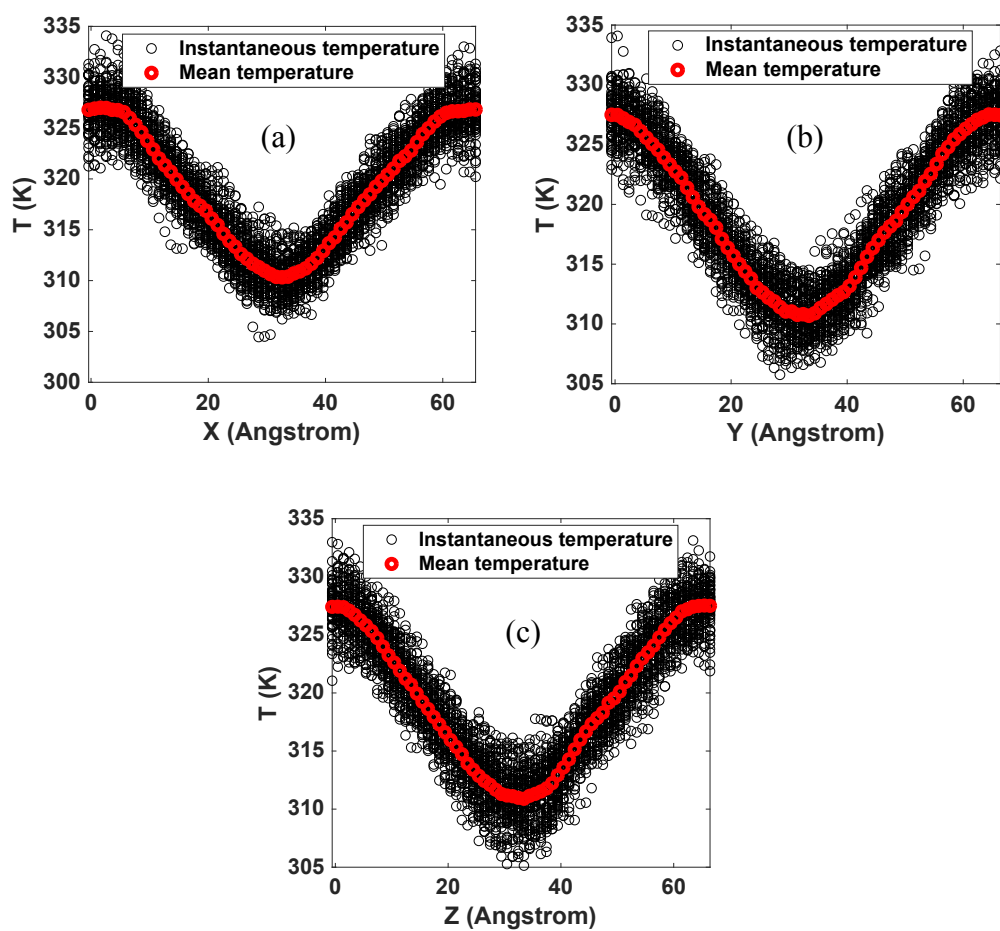
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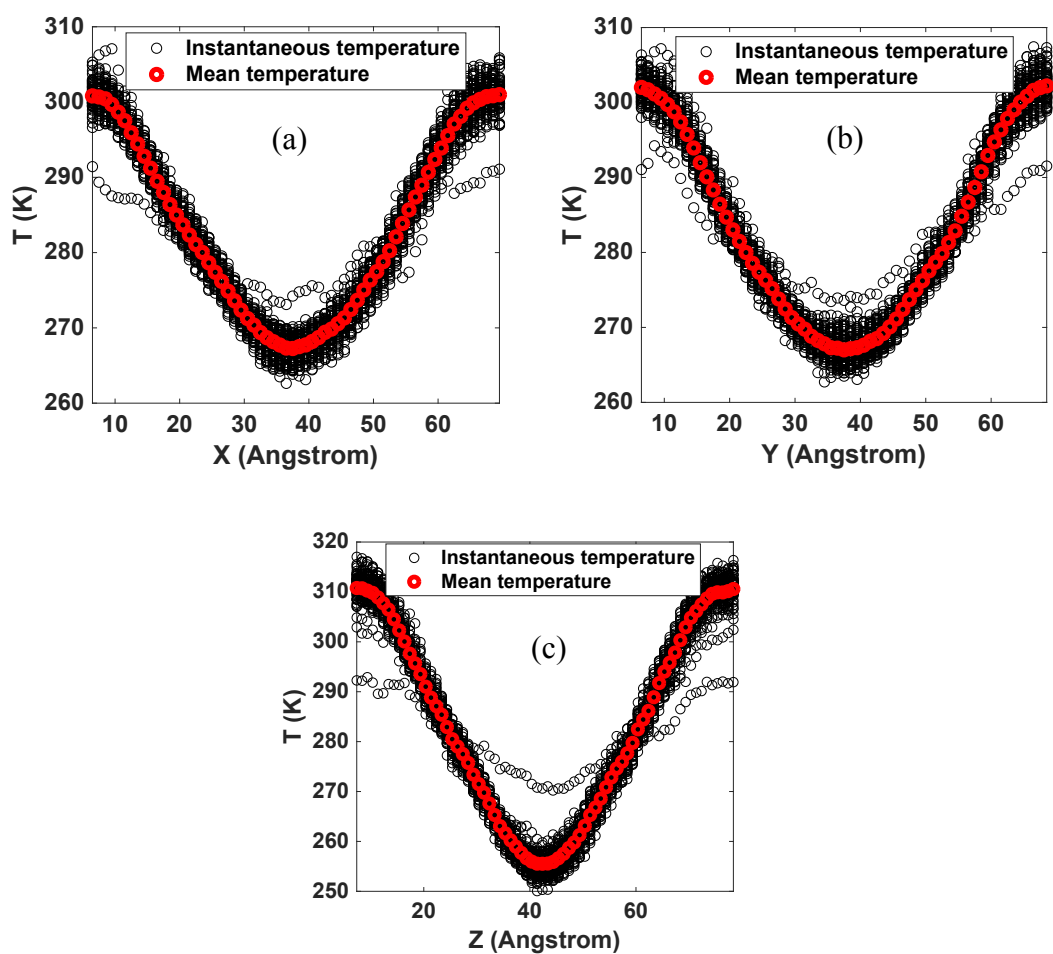
**Figure S1.** The temperature profile of the pure paraffin in 280 K (solid phase) under assigned constant heat flux in the: (a) x-direction, (b) y-direction, (c) z-direction



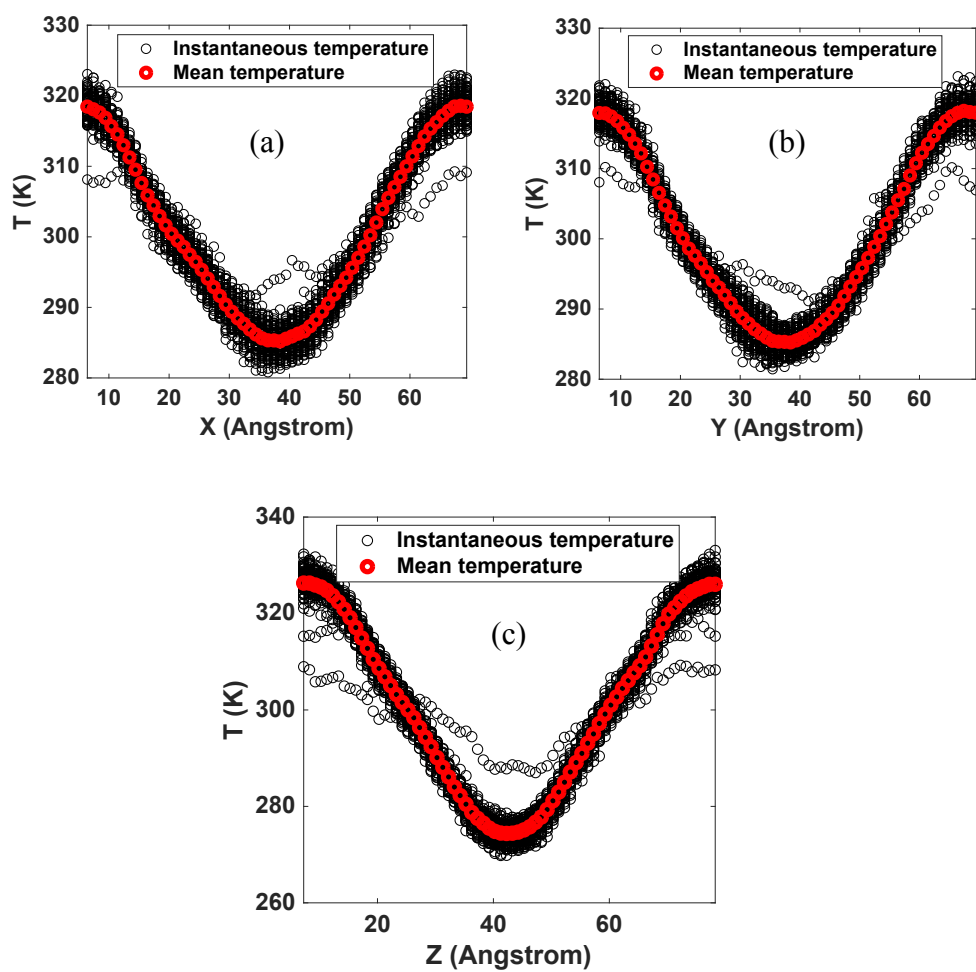
**Figure S2.** The temperature profile of the pure paraffin at 300 K (melting temperature range) under assigned constant heat flux in the: (a) x-direction, (b) y-direction, (c) z-direction



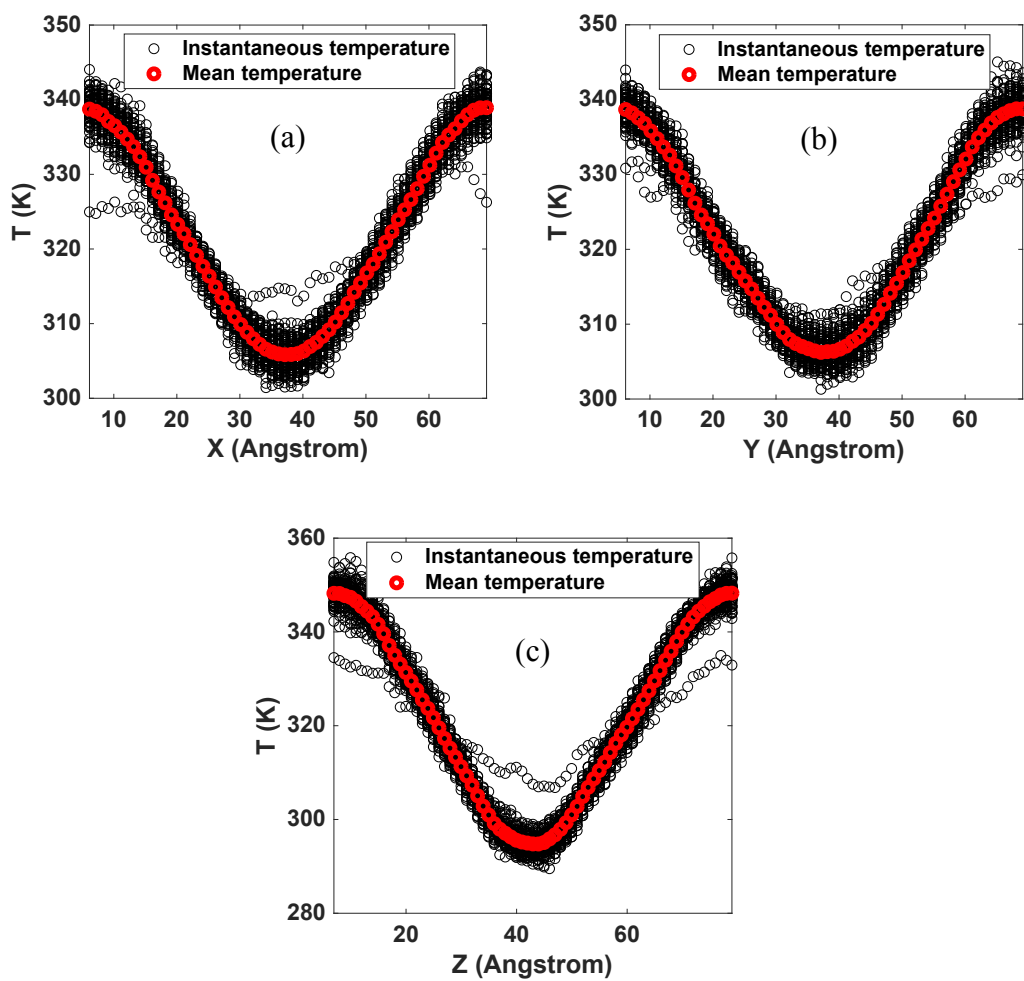
**Figure S3.** The temperature profile of the pure paraffin at 320 K (liquid phase) under assigned constant heat flux in the: (a) x-direction, (b) y-direction, (c) z-direction



**Figure S4.** The temperature profile of nanocomposite at 280 K under assigned constant heat flux in the: (a) x-direction, (b) y-direction, (c) z-direction



**Figure S5.** The temperature profile of nanocomposite at 300 K under assigned constant heat flux in the: (a) x-direction, (b) y-direction, (c) z-direction



**Figure S6.** The temperature profile of nanocomposite at 320 K under assigned constant heat flux in the: (a) x-direction, (b) y-direction, (c) z-direction