

Supporting Information

Gallium-in-Glycerol Phase Change Material Emulsions (PCMEs) with Superior Latent Heat Capacity and Thermal Conductivity

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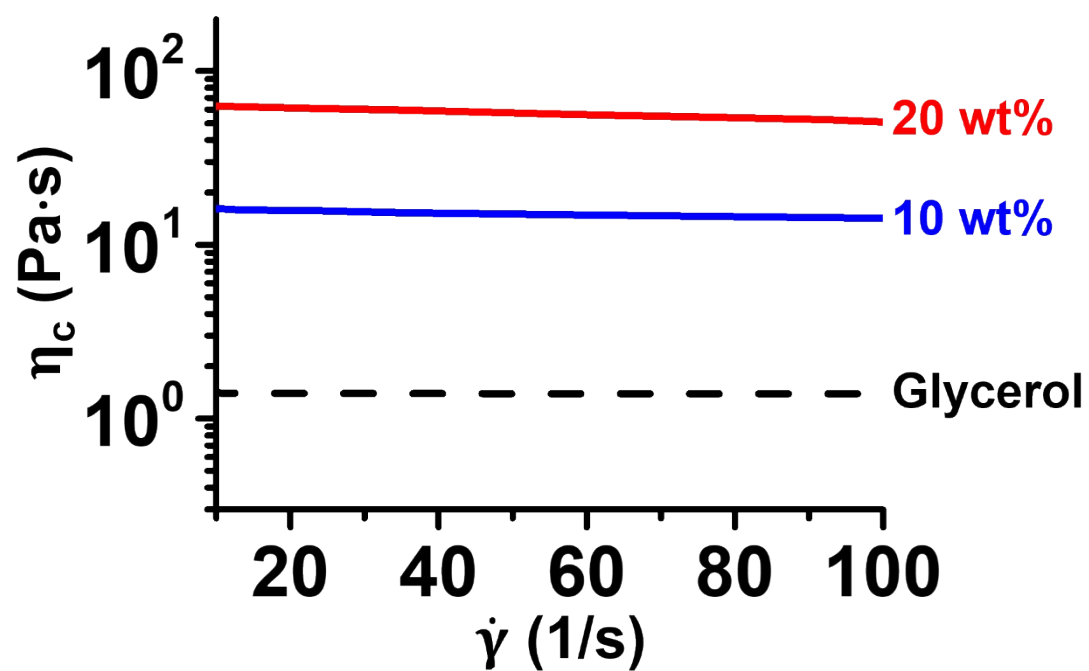


Figure S1. Viscosities of glycerol solutions with 0, 10, and 20 wt% PVP, represented as functions of the shear rate.

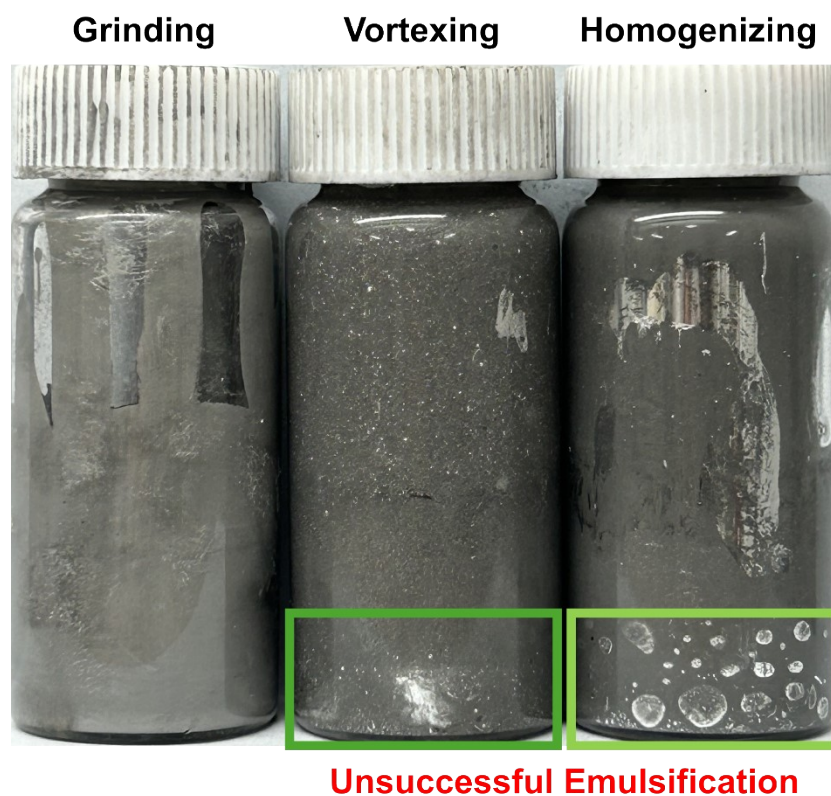


Figure S2. Photographs of Ga:glycerol solution (20 wt% PVP) = 5:5 mixtures after emulsification attempts using different methods.

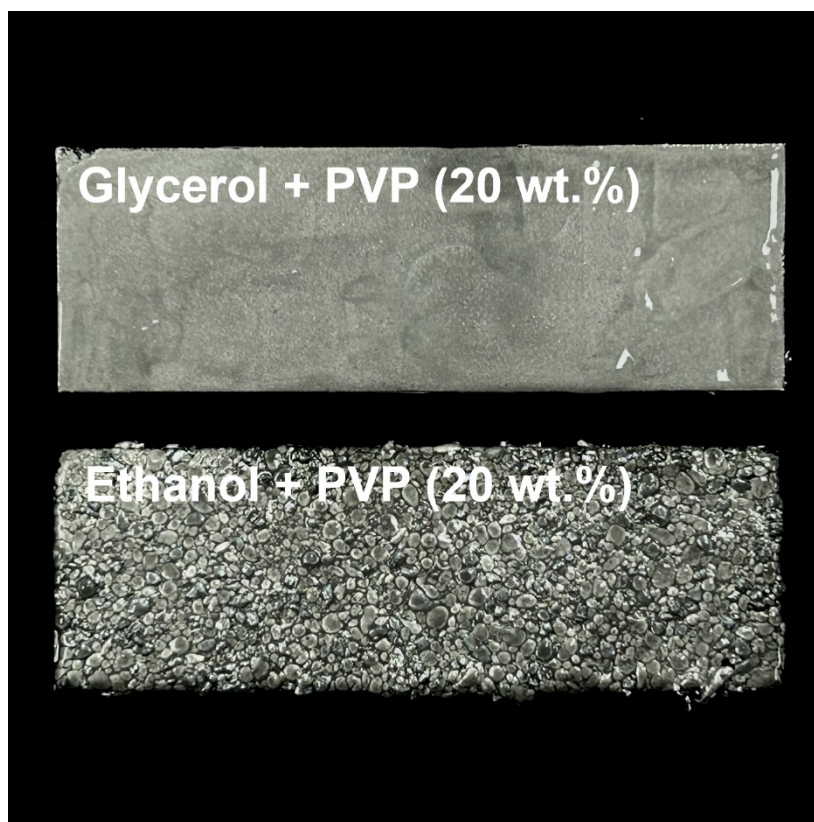


Figure S3. Photographs of Ga-in-glycerol (top) and Ga-in-ethanol (bottom) emulsions prepared via the grinding method. The continuous phases of both samples contained 20 wt% PVP, with Ga-to-continuous phase volume ratios of 6:4.

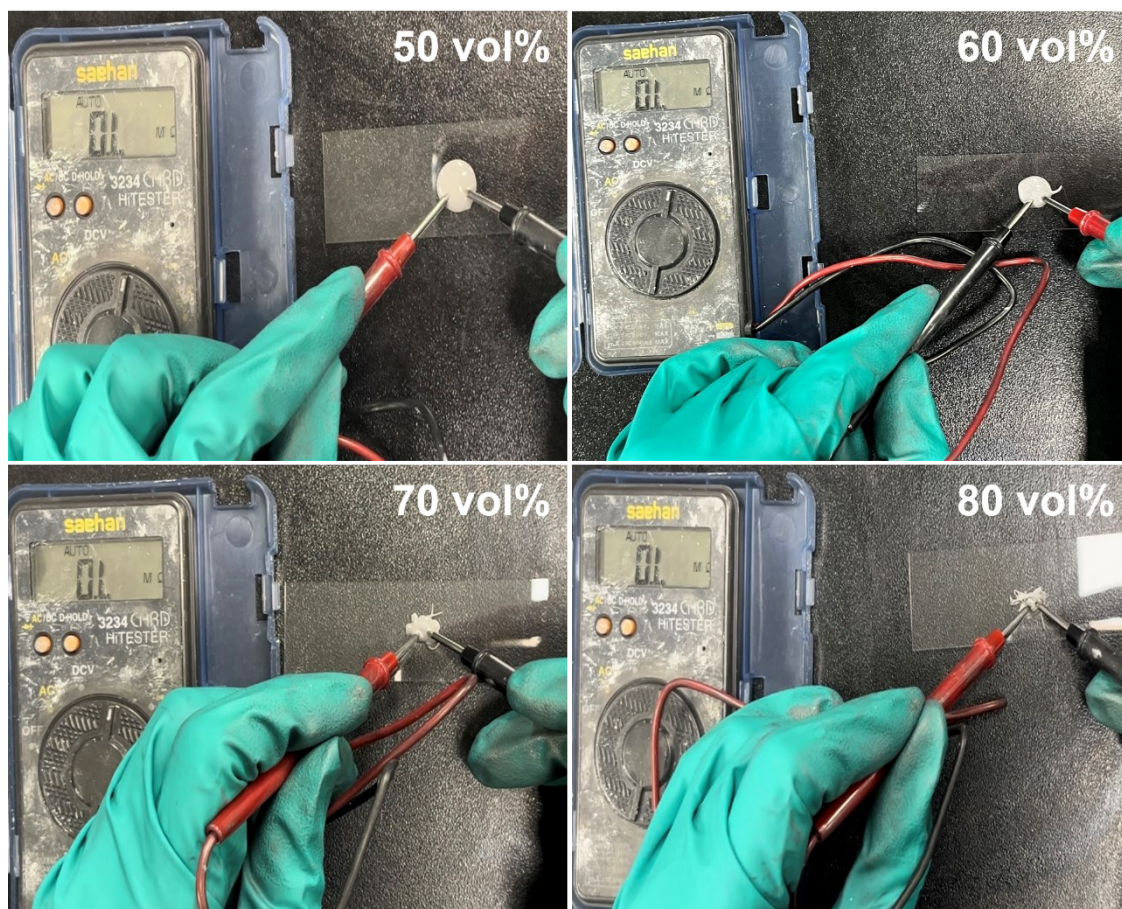


Figure S4. Confirmation of electrical insulation for Ga-in-glycerol emulsions with various Ga contents (50, 60, 70, and 80 vol%). “O.L.” displayed on the digital screen indicates that the electrical resistance of the sample exceeds the measurement limit (*i.e.*, >40 MΩ).

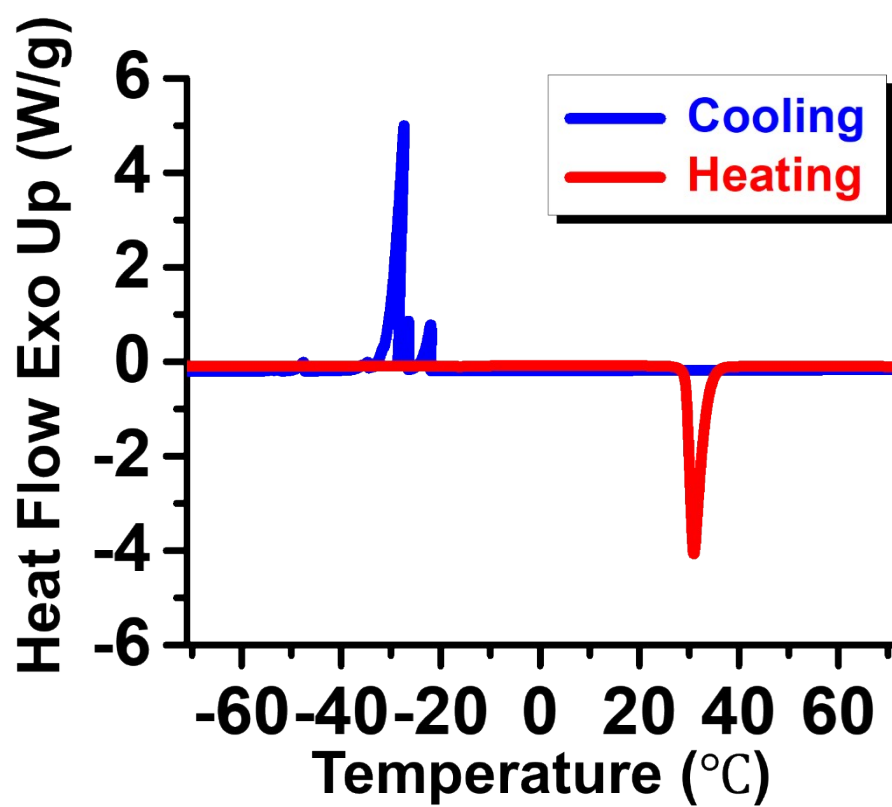


Figure S5. DSC heating (solid) and cooling (dotted) curves of bulk Ga.

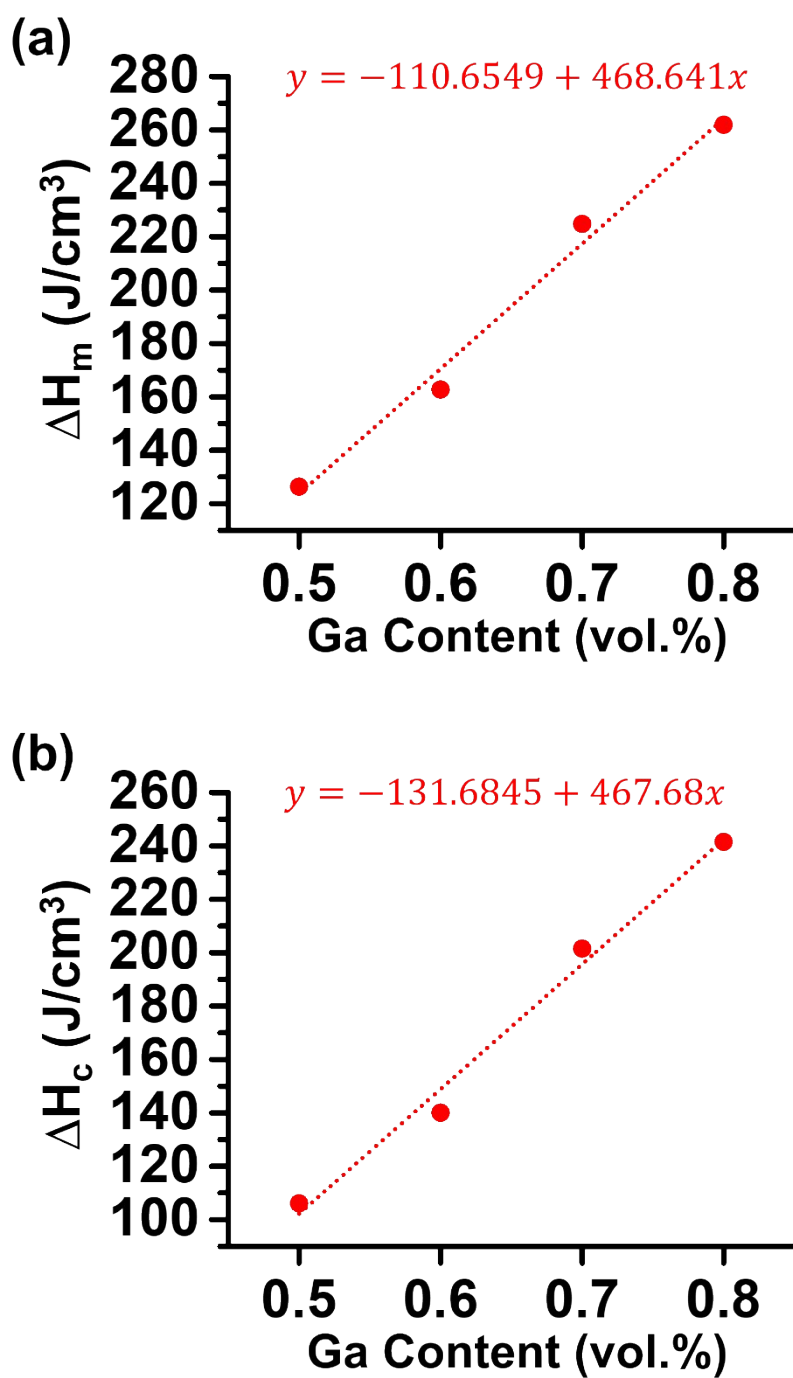


Figure S6. Linear fits of the measured (a) ΔH_m and (b) ΔH_c values for Ga-in-glycerol emulsions with various Ga contents.