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AN EXPERIMENTAL INVESTIGATION OF EXPEDITED UNIDIRECTIONAL FREEZING OF NANOPARTICLE-ENHANCED PHASE CHANGE MATERIALS (NEPCM)

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SUMMARY: This paper presents an experimental investigation of unidirectional freezing of cyclohexane enhanced by copper oxide nanoparticles. It is shown that the freezing rate is expedited as the loading of nanoparticles is increased, primarily due to the enhanced thermal conductivity observed in both solid and liquid phases.