

Specific Heat and Latent Heat

Thermodynamics

Winter 2025

College of the Atlantic.

1. You have 500 mL of water at 40 degrees C. Into the water you place 0.1 kg of ice at 0 C. What happens after thermal equilibrium is reached? Does all the ice melt? If yes, what is the final temperature of the system? If no, how much ice is left?



Figure 1: <https://www.pexels.com/photo/a-glass-of-water-with-ice-10464973/>. Photo by Tanyakorn. (<https://www.pexels.com/@tanyakorn/>). Figure source: <https://www.pexels.com/photo/a-glass-of-water-with-ice-10464973/>.