Heat of fusion of ice

To get the heat of fusion of ice we need to determine the Energy it takes to melt the ice and also the mass of the ice and determine the heat of fusion. To determine the mass of the ice melted (m) we start by determine the volume of the water generated when the ice melted. This is the difference between the final volume (v2) and the initial volume (v1). Using the density of water (1. 0g/mL), this volume can be converted into mass.

This concept is shown by the equation [M= (v2-v1) x (1. 0g/ml)]. To determine the energy consumed by the melting ice (E), we must determine the energy released by the water to make the ice to melt. This energy can be determined by using the equation to calculate the energy of the temperature changes. The mass of the water releasing heat is determined by multiplying the initial volume (v1) by the density of water (1. 0g/mL).

The specific heat of water can be obtained from any reliable reference text and is equal to 4. 184j/g? C. he temperature change is the difference between the final temperature (T2) and the initial temperature (T1) of the water. This concept is shown by the equation [E= (v1) x (1. 0g/mL) x (4. 184J/g°C) x (T2-T1)], and then calculate the heat of fusion of Ice using the equation EM=? Hf. Plan:

To determine the heat of fusion of ice I need a cup of warm water to place the ice cube to calculate the differences of the temperature of the warm water before the ice was add it and after the ice was added it. To take the temperature of the water we need to use a thermometer and make sure it’s in Celsius. To determine the mass, first I need to find the mass of the liquid (water) using a graduated cylinder and then find the mass again after the ice is added and then melted using the same material.