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## LATENT HEAT

Very different from specific heat in their relationship to the chemical constitution of a substance, but not unlike it in biological importance, are the so-called latent heats of melting and of evaporation.

The latent heat of melting is expressed as the number of calories which are required to convert one gram of solid at the freezing point into one gram of liquid at the same temperature. For water its value is approximately 80, which indicates that the same quantity of heat must be employed to melt ice as to raise the temperature of the resulting ice-water to 80° centigrade.

The latent heat of evaporation is similarly defined as the number of calories required to change one gram of liquid into vapor. Its magnitude depends upon the temperature at which the process takes place. The latent heat of evaporation of water is approximately 536. There is required, accordingly, as much heat to boil away one gram of water as to raise the temperature of 536 grams through 1° centigrade.

There are a number of important effects of