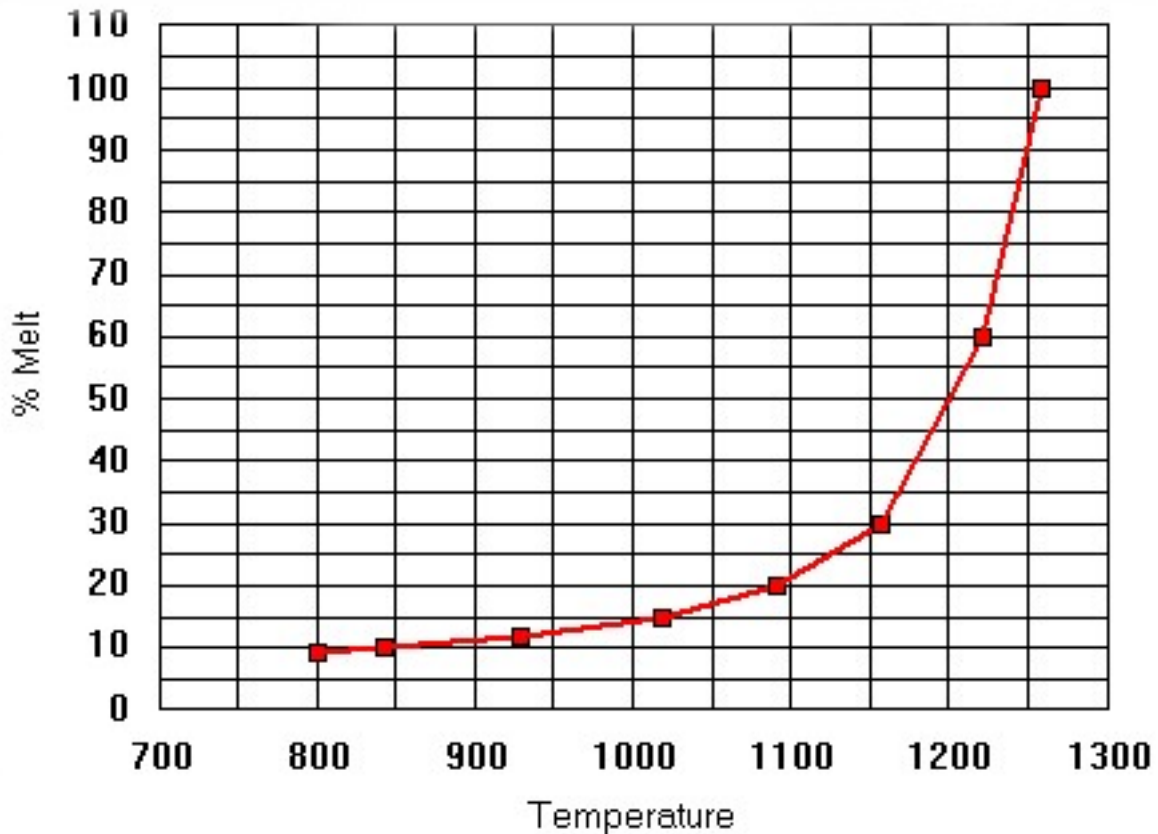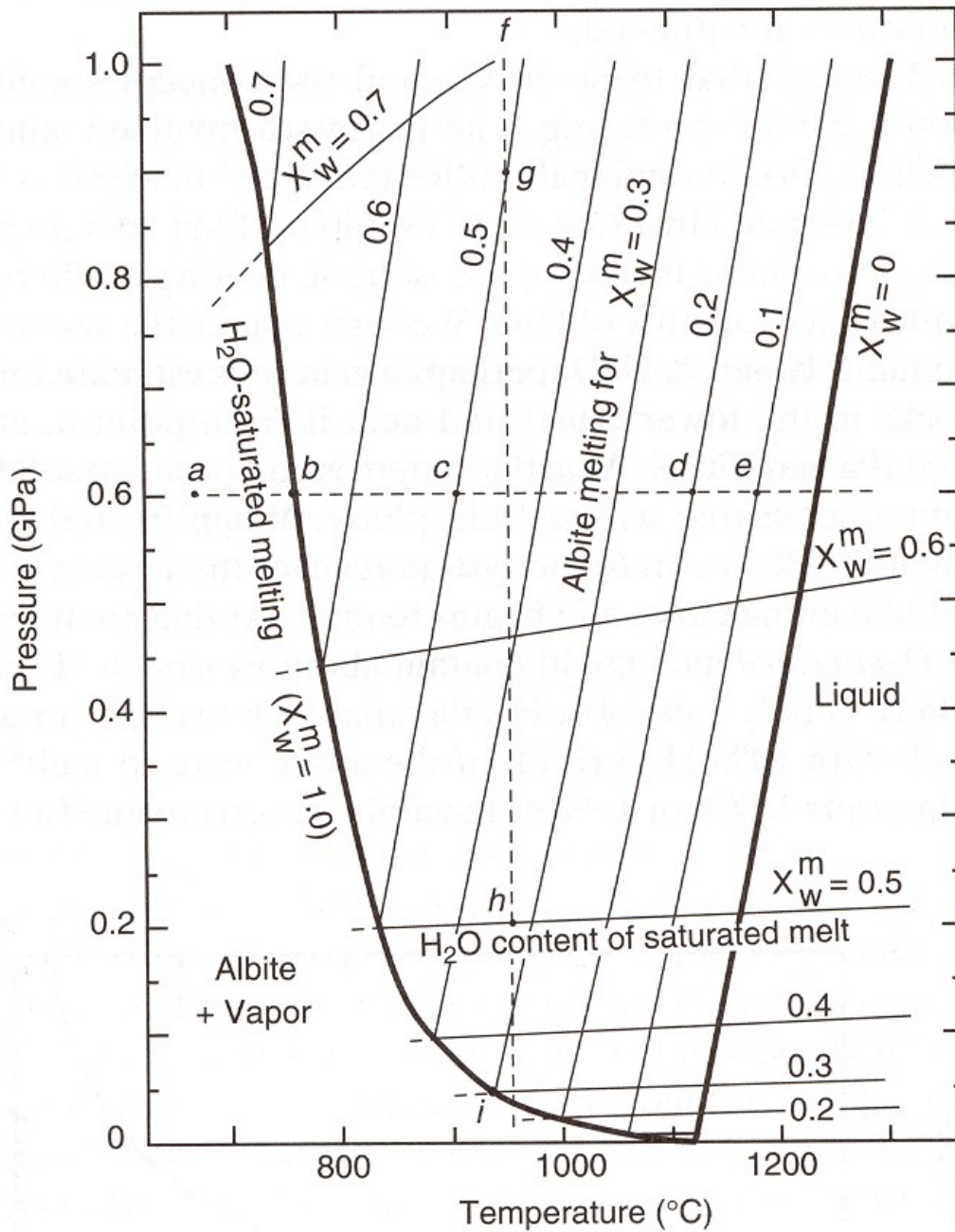## Melting Relationships in the System Albite-H$_2$O

Using the attached diagram Figure 7-22, prepare a graph similar to figure 7-23 (Winter, p. 130) showing the %Melt versus the temperature in °C. Assume an initial position of 700°C, 0.8 GPa, with a rock containing 6 mol percent water. The graph may be drawn by hand or plotted on using computer software. Then answer the following questions.

1. At what temperature does the first melt appear? _____740°C_____

2. Using the graph you prepared, estimate the temperature at which the following percent of melt are achieved.

% Melt	Temperature
25	1130°C
50	1200°C
75	1240°C
100	1260°C

Figure 7–22 Pressure-temperature projection of the melting relationships in the system albite-H_2O. From Burnham and Davis (1974). Reprinted by permission of the American Journal of Science.