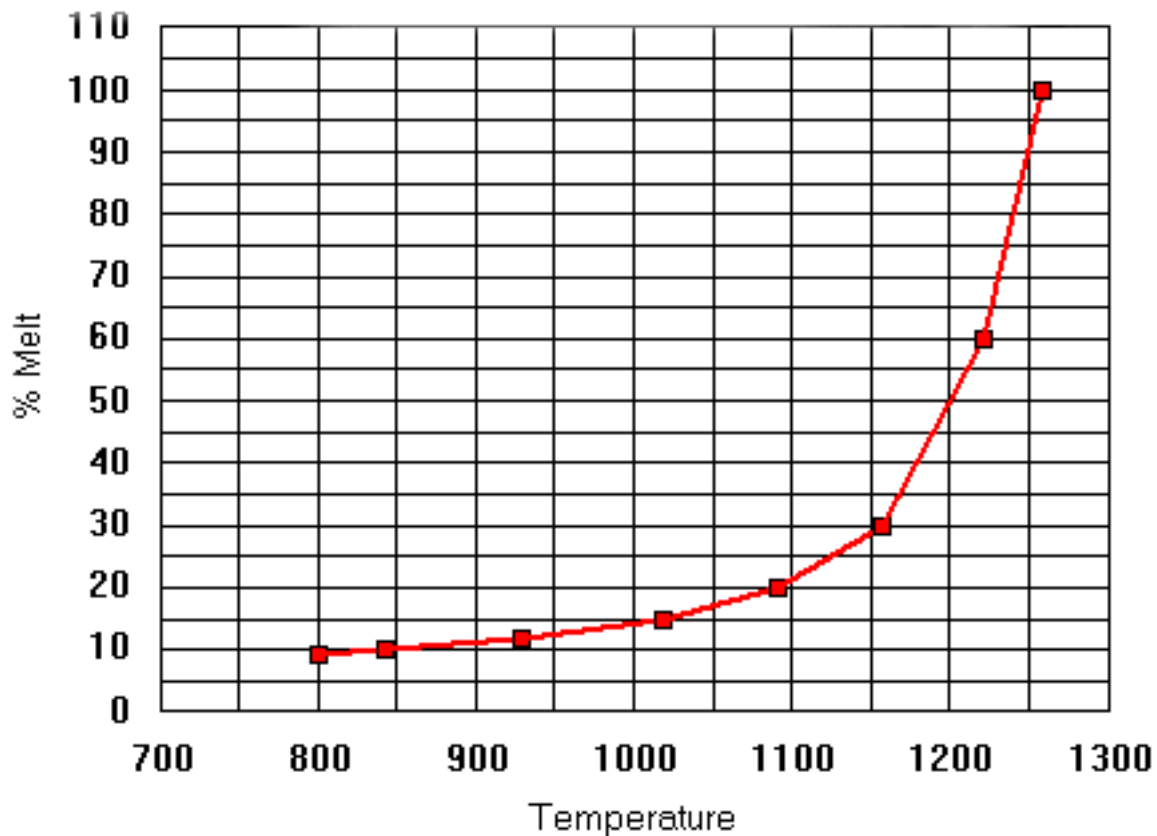


Melting Relationships in the System Albite-H₂O

Using the attached diagram Figure 7-22, prepare a graph similar to figure 7-23 (Winter, p. 124) 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	<u>1130°C</u>
50	<u>1200°C</u>
75	<u>1240°C</u>
100	<u>1260°C</u>



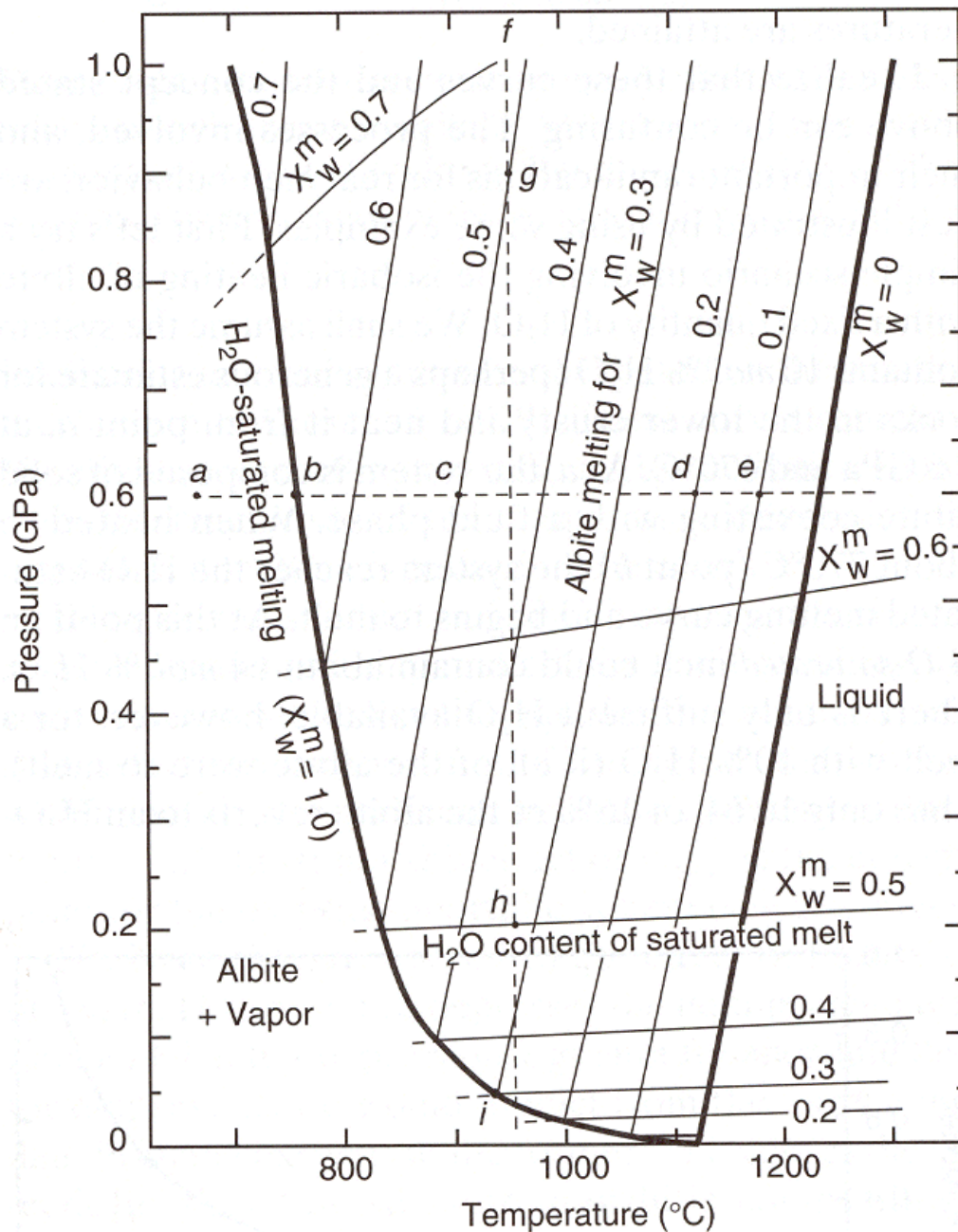


Figure 7-22 Pressure-temperature projection of the melting relationships in the system albite-H₂O. From Burnham and Davis (1974). Reprinted by permission of the American Journal of Science.