

Session #21: Homework Problems

Problem #1

Account for the fact that aluminum (Al) does not form a stable glass while elemental selenium (Se) does.

Problem #2

Describe two analytical techniques that allow you to distinguish an amorphous solid from a crystalline solid.

Problem #3

Under what conditions will some liquid phases not assume ordered (crystalline) structures upon cooling to below their melting points?

Problem #4

For silica glass, Pyrex, and soda-lime glass:

- (a) give the respective working and softening temperatures.
- (b) explain the differences in the listed temperatures by comparison with the observed temperatures in silica glass.

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