

Exercise V

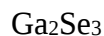
1) Aluminum is composed of larger and lighter atoms than silicon. Why is the density of Al larger than that of Si ?

The structure of Si (diamond-like) has a very inefficient packing

2) Why is graphite conducting, but diamond not?

Alternating single and double bonds within the layer

3) Which of the following compounds does not exist?



The last (In^{IV} !)

4) Which of the following compounds is able to oxidize aluminum?



All of them!

5) Which of the following values is a reasonable internal surface for activated charcoal?

$$1000 \text{ m}^2/\text{kg}$$

$$1000 \text{ cm}^2/\text{g}$$

$$1000 \text{ m}^2/\text{g}$$

$$1000 \text{ cm}^2/\text{kg}$$