## **Exercise VII**

1) Which of the following reactions is a disproportionation?

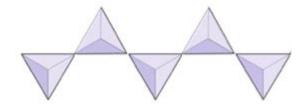
## The 1st one

2) Which statement about silicates is incorrect?

Si is 4-coordinate Some silicates contain isolated molecular ions Talc and mica are examples of silicates with chain structures Zeolites are alumosilicates

## The 3<sup>rd</sup> one

3) What is the formula and charge of the anion in (single) chain silicates



## $SiO_3^{2-}$

4) What are differences in the chemical reactivity of silanes vs. alkanes?

Silanes spontaneously burn in air to give SiO<sub>2</sub> and H<sub>2</sub>O, and the decompose into the elements upon heating

5) What is the difference between silicones and silicates?

Silicates are the salts of silicic acid, and its condensation products. Silicones are neutral polymers with the general structure  $(SiR_2O)_n$  (R mostly CH<sub>3</sub>)