

## Analytical chemistry spectroscopy AAS and UV-visible worksheet 4

- 1) What are the similarities between UV-visible and AAS?
- 2) How do the two techniques of UV-visible and AAS differ?
- 3) The phosphate content of the water of a contaminated lake was analysed using UV-visible spectroscopy. In one analysis, a 25.0 mL sample of lake water was placed in a 250 mL volumetric flask and made to the mark with distilled water. The solution was treated with a small volume of sodium molybdate solution to form a blue-coloured phosphorus compound. A 5.00 mL sample was taken and recorded an absorbance of 0.60 at a wavelength of 600 nm. A calibration curve, shown below, was constructed using five standard phosphate solutions.

What is the concentration of phosphate in the water given in % w/v?

