



Determination of the concentration of the pigment standards:

Matched cuvettes with lids are used and the performance of the spectrophotometer is controlled prior to the measurements. Secondary spectrophotometric calibration standards (certified reference material from NIST) are used for checking the absorbance and wave length accuracy. Stray light is investigated by using secondary calibration standards with NaI or KCl and reference glass filters, while a liquid filter with toluene in n-hexane is used for checking the spectral resolution. The absorbance is read at the wavelength of maximum absorbance (given on the *Certificate of Analysis*) for each pigment in each solvent. All readings are made at room temperature. The spectrophotometer is zeroed with the solvent used for each solution of pigments. The concentrations are subsequently calculated using the absorption coefficients on the *Certificate of Analysis*. The precision of the measurements is always <0.5%. Furthermore, selected batch numbers are occasionally send to an independent laboratory for control of the concentrations (accuracy), and the relative per cent difference has in average been max. 2%, while the absolute per cent difference has been max. 2.6%.