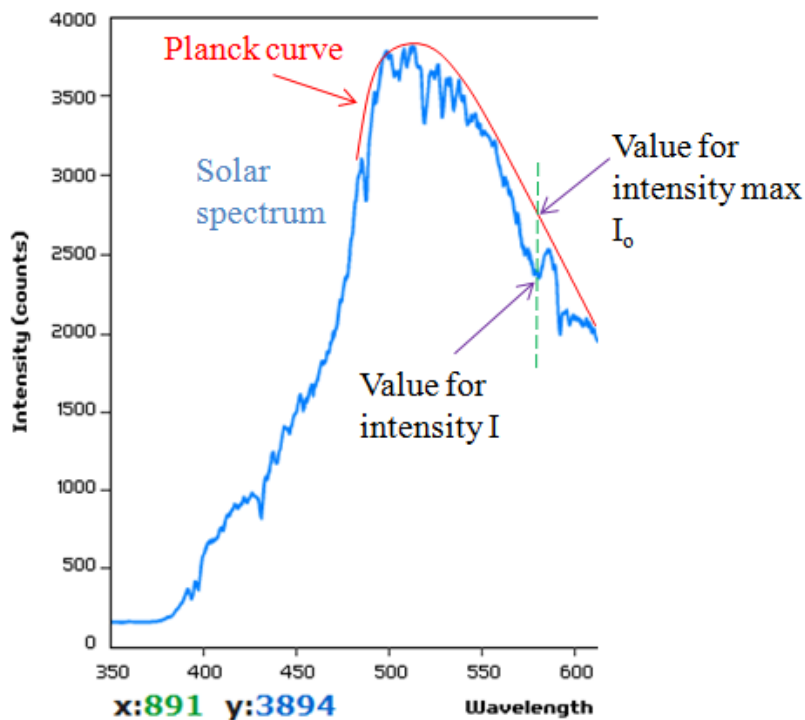


## TASKS

1. Determine the temperature of the surface of the Sun by using the solar spectrum.
2. Try to measure the wavelengths of the spectral lines with capitals (A, B, ...) in the solar spectrum. These spectral lines show the atoms abundant in the solar atmosphere. Use for instance the spectral tables from NIST: <http://www.nist.gov/pml/data/asd.cfm>.
3. Discuss how the amplification chosen affects the spectrum.
4. Use the spectrum to determine the thickness of the ozone layer by measuring the absorption dip of ozone around 580 nm as in the figure below:



Depending on the time of day the absorption length varies and thus the absorption coefficient  $k$  in the Lambert-Beer's law formula that is given for different times.

## Report

The report should just be 2-3 A4 pages long. It should contain:

### Title

Name of laboration, author, and e-mail address.

### Aim

The purpose of the investigation and which parts it consists of.

### Experiment

Short description of the measurement. Table of measured values.

### Results

The result for the different parts of the experiment and used formulas. Calculations of measured values, preferable with uncertainties.

### Conclusions