

DOING PHYSICS WITH PYTHON

QUANTUM MECHANICS

VISIBLE SPECTRUM DISPLAY

Ian Cooper

matlabvisualphysics@gmail.com

DOWNLOAD DIRECTORY FOR PYTHON SCRIPTS

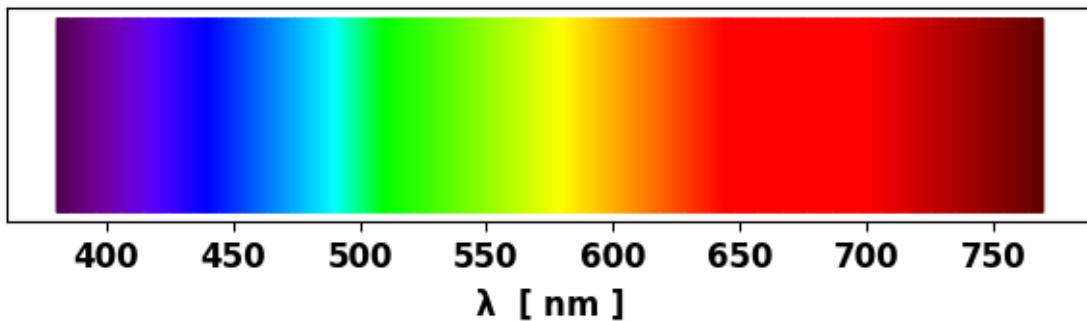
qmSpectrum.py

GitHub

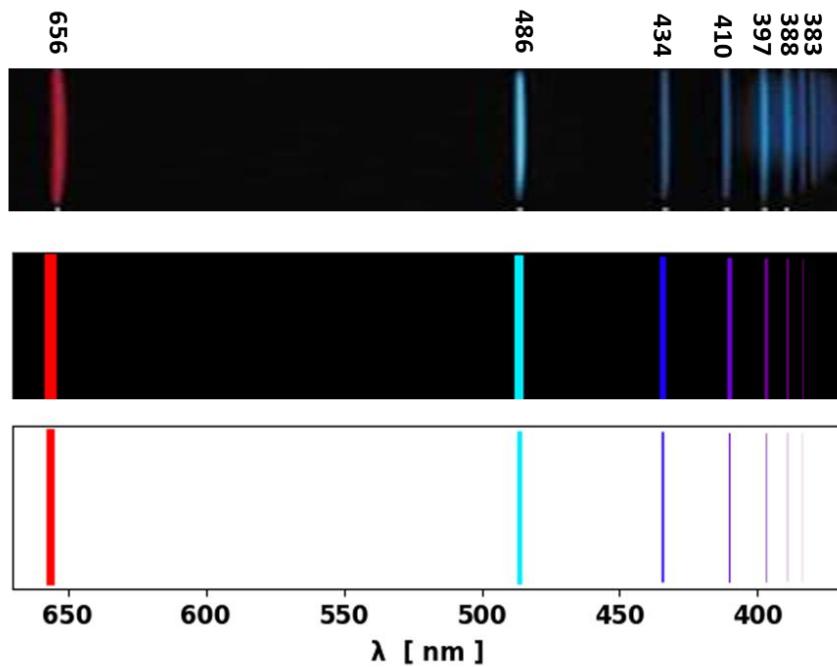
Google Drive

The Python code **qmSpectrum.py** can be used to produce a plot of the visible spectrum for the wavelength range from 380 nm to 780 nm. The script uses the **fill_between** plot function to give the spectrum. The colour for each wavelength is calculated from the function **colour(wL)** where wL is the wavelength of the light from 380 nm to 780 nm.

The plot of for the visible spectrum is shown below.



HYDROGEN: BALMER SERIES VISIBLE SPECTRUM



Balmer series spectrum for the visible components. Top is an image of the spectrum and the lower two spectrum are created using the code **qmSpectrum.py**.

