

CHAPTER OVERVIEW

1: Boltzmann

```
from matplotlib import pyplot as plt
import numpy as np
k=0.695 #In wavenumbers/K. We can change it to other units if we want to use  $\epsilon$ 
Na=6.022045*10**23
h=6.262e-34
c=2.9979e10
def q(eps,T):
    sum=0
    for i in range(0,len(eps)):
        sum+=np.exp(-eps[i]/k/T)
    return sum
T=np.arange(1,1500,1)
#@title Default title text
upperlevelenergy = 500#@param {type:"integer"}
eps1=[0,upperlevelenergy] #energy levels at 0 and 50 cm-1
plt.plot(T,q(eps1,T))
plt.ylim(1,2)
```

run

restart

restart & run all

```
y=3
print(y)
```

run

restart

restart & run all

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