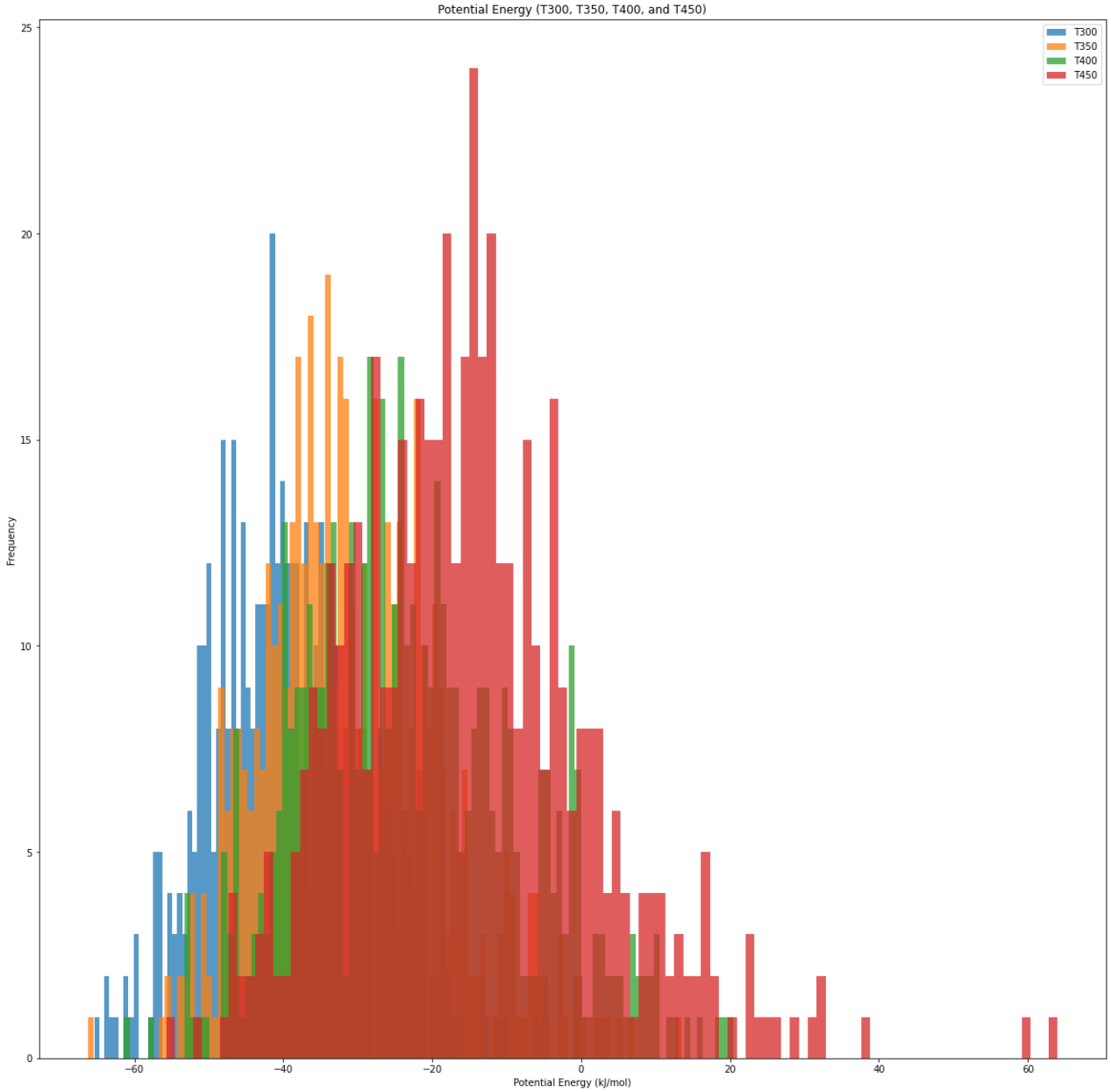
In [30]:
```
#Import module
import matplotlib.pyplot as plt

#Open potential.xvg file from /home/kjt9860/comp-class/comp-lab-class/Week5/T300 direct
with open('/home/kjt9860/compclass/comp-lab-class/comp-lab-class/Week5/T300/potential.x

    # read file from line 25
    lines = f.readlines()[25:]

with open('/home/kjt9860/compclass/comp-lab-class/comp-lab-class/Week5/T350/potential.x

    lines2 = f.readlines()[25:]

with open('/home/kjt9860/compclass/comp-lab-class/comp-lab-class/Week5/T400/potential.x

    lines3 = f.readlines()[25:]

with open('/home/kjt9860/compclass/comp-lab-class/comp-lab-class/Week5/T450/potential.x

    lines4 = f.readlines()[25:]

#Plot histogram of potential energy for T300, T350, T400, and T450
plt.hist([float(line.split()[1]) for line in lines], bins=100, alpha=0.75, label='T300'
plt.hist([float(line.split()[1]) for line in lines2], bins=100, alpha=0.75, label='T350
plt.hist([float(line.split()[1]) for line in lines3], bins=100, alpha=0.75, label='T400
plt.hist([float(line.split()[1]) for line in lines4], bins=100, alpha=0.75, label='T450
plt.legend(loc='upper right')
plt.xlabel('Potential Energy (kJ/mol)')
plt.ylabel('Frequency')
plt.title('Potential Energy (T300, T350, T400, and T450)')
plt.show()
```


Potential Energy (T300, T350, T400, and T450)
T300
T350
T400
T450
Frequency
Potential Energy (kJ/mol)
0
5
10
15
20
25
−60
−40
−20
0
20
40
60

In [ ]: