import pandas as pd

import numpy as np

import matplotlib.pyplot as plt

import pylab as pl

##构造函数生成topol不同类型的频数汇总DataFrame表

##函数说明：输入文件路径生成topol频数表

def topol\_bar(a): #a:文件路径,注意:'\'都要使用‘\\’

df = pd.read\_excel(a,sheet\_name='Sheet1')#读取整张表格

dft = df.pivot\_table(values = ['phase'],index = ['topol'],aggfunc = 'count')#Pivot.table

dft.rename(columns={'phase':'Fred'}, inplace = True)

return dft

##使用topol\_bar函数将两个表格中topol例数据分类汇总

df1 = topol\_bar('C:\\Users\\Administrator\\Desktop\\Excel\_Pandas\\1\\3.xls')

df2 = topol\_bar('C:\\Users\\Administrator\\Desktop\\Excel\_Pandas\\1\\4.xls')

##绘制直方图并显示

df1.plot(kind='bar',width = 0.35).get\_figure()#直方图，宽度0.35

plt.title('3.xls Topol-Frequency')#设置标题

pl.xticks(rotation=360)#旋转xlable到水平位置

plt.ylabel('Frequency')#设置y轴lable

plt.yticks(np.arange(-0, 60, 5))#设置y轴范围，下同

df2.plot(kind='bar',width = 0.23).get\_figure()

plt.title('4.xls Topol-Frequency')

pl.xticks(rotation=360)

plt.ylabel('Frequency')

plt.yticks(np.arange(-0, 60, 5))

plt.show()#显示图表