ASSIGNMENT NO 8 - APPLICATION OF PYTHON IN THE FIELD OF WATER SUPPLY ENGINEERING

Q-1

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#To determine alkalinity of given sample
H2SO4_req = float(input("Enter the volume ofH2SO4 required in ml:"))
Sample = float(input("Enter the value of sample inlitres:"))
Alkalinity_Removed=H2SO4_req
print("Alkalinity_Removed:", Alkalinity_Removed,"mg")
Alk_mg_per_lit = Alkalinity_Removed/ Sample
print("Total Alkalinity:",Alk_mg_per_lit,"mg/lit")
OH= float (input("Enter the value of OH-Alkalinity present : "))
#Alkalinity removed till pH of 8.3
H2SO4_req = float (input("Enter the volume ofH2S04 required in ml :"))
Alkalinity_Removed = H2SO4_req
print("Alkalinity_Removed: ",Alkalinity_Removed, "mg")
CO3_Combined = Alkalinity_Removed/Sample
print ("Carbonate Alkalinity upto pH8.3:",CO3_Combined, "mgperlit" )
CO3=CO3_Combined-OH
print("Carbonate Alkalinity:", CO3,"'mg/lit")
HCO3 =Alk_mg_per_lit - 2*CO3-OH
print("Bicarbonate Alkalinity:", HCO3, "mg/it")
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Enter the volume ofH2SO4 required in ml:30
Enter the value of sample inlitres:0.2
Alkalinity_Removed: 30.0 mg
Total Alkalinity: 150.0 mg/lit
Enter the value of OH-Alkalinity present : 5
Enter the volume ofH2S04 required in ml :11
Alkalinity_Removed:  11.0 mg
Carbonate Alkalinity upto pH8.3: 55.0 mgperlit
Carbonate Alkalinity: 50.0 'mg/lit
Bicarbonate Alkalinity: 45.0 mg/it
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