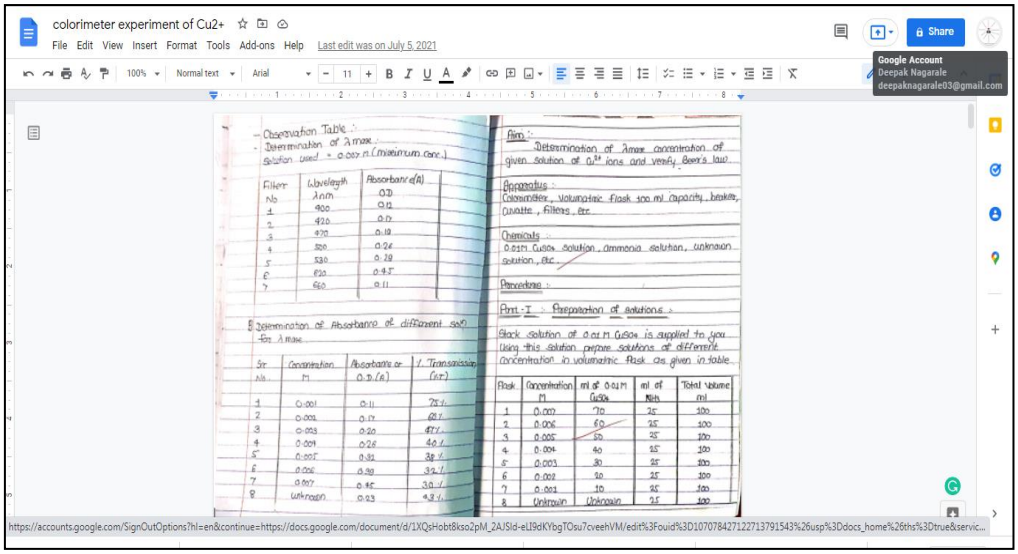
colorimeter experiment of Cu2+
File Edit View Insert Format Tools Add-ons Help Last edit was on July 5, 2021
Share
Google Account
Deepak Nagarale
deepaknagarale03@gmail.com
Observation Table :-
Determination of λmax :-
Solution used = 0.002 M (maximum conc.)
Filter No | Wavelength λnm | Absorbance (A)
1 | 400 | 0.0
2 | 420 | 0.12
3 | 470 | 0.17
4 | 520 | 0.19
5 | 530 | 0.24
6 | 620 | 0.29
7 | 650 | 0.45
8 | Determination of Absorbance of different conc. for λmax
Sr. No. | Concentration M | Absorbance or O.D. (A) | % Transmission (T)
1 | 0.001 | 0.11 | 78 %
2 | 0.002 | 0.17 | 68 %
3 | 0.003 | 0.20 | 47 %
4 | 0.004 | 0.26 | 40 %
5 | 0.005 | 0.32 | 38 %
6 | 0.006 | 0.39 | 32 %
7 | 0.007 | 0.45 | 30 %
8 | Unknown | 0.23 | 43 %
Aim :-
Determination of λmax concentration of given solution of Cu2+ ions and verify Beer's law.
Apparatus :-
Colorimeter, Volumetric Flask 100 ml Capacity, beaker, cuvette, filters, etc.
Chemicals :-
0.01M CuSO4 solution, ammonia solution, unknown solution, etc.
Procedure :-
Part - I :- Preparation of solutions :-
Stock solution of 0.01 M CuSO4 is supplied to you. Using this solution prepare solutions of different concentration in volumetric flask as given in table.
Flask | Concentration M | ml of 0.01M CuSO4 | ml of Nah | Total volume ml
1 | 0.001 | 10 | 25 | 100
2 | 0.002 | 20 | 25 | 100
3 | 0.003 | 30 | 25 | 100
4 | 0.004 | 40 | 25 | 100
5 | 0.005 | 50 | 25 | 100
6 | 0.002 | 20 | 25 | 100
7 | 0.001 | 10 | 25 | 100
8 | Unknown | Unknown | 25 | 100
https://accounts.google.com/SignOutOptions?hl=en&continue=https://docs.google.com/document/d/1XQsHobt8kso2pM_2AJSld-eLI9dKYbgTOsu7cveehVM/edit%3Fouid%3D107078427122713791543%26usp%3Ddocs_home%26ths%3Dtrue&servic...