

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES



Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai

Approved by Pharmacy Council of India, New Delhi.

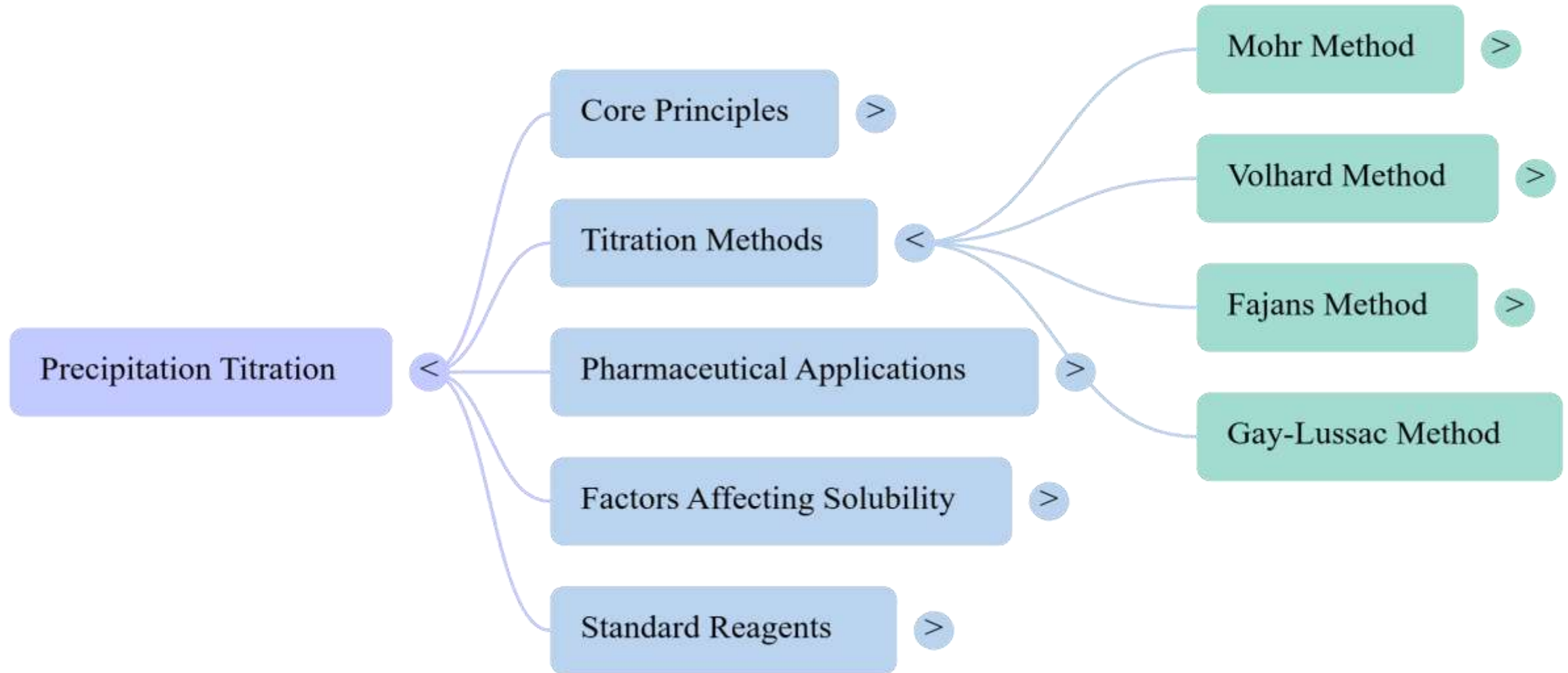
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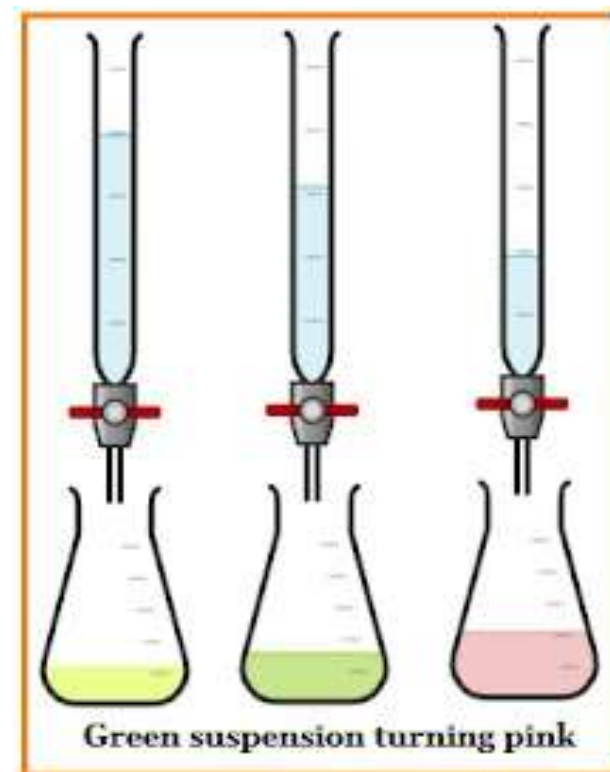
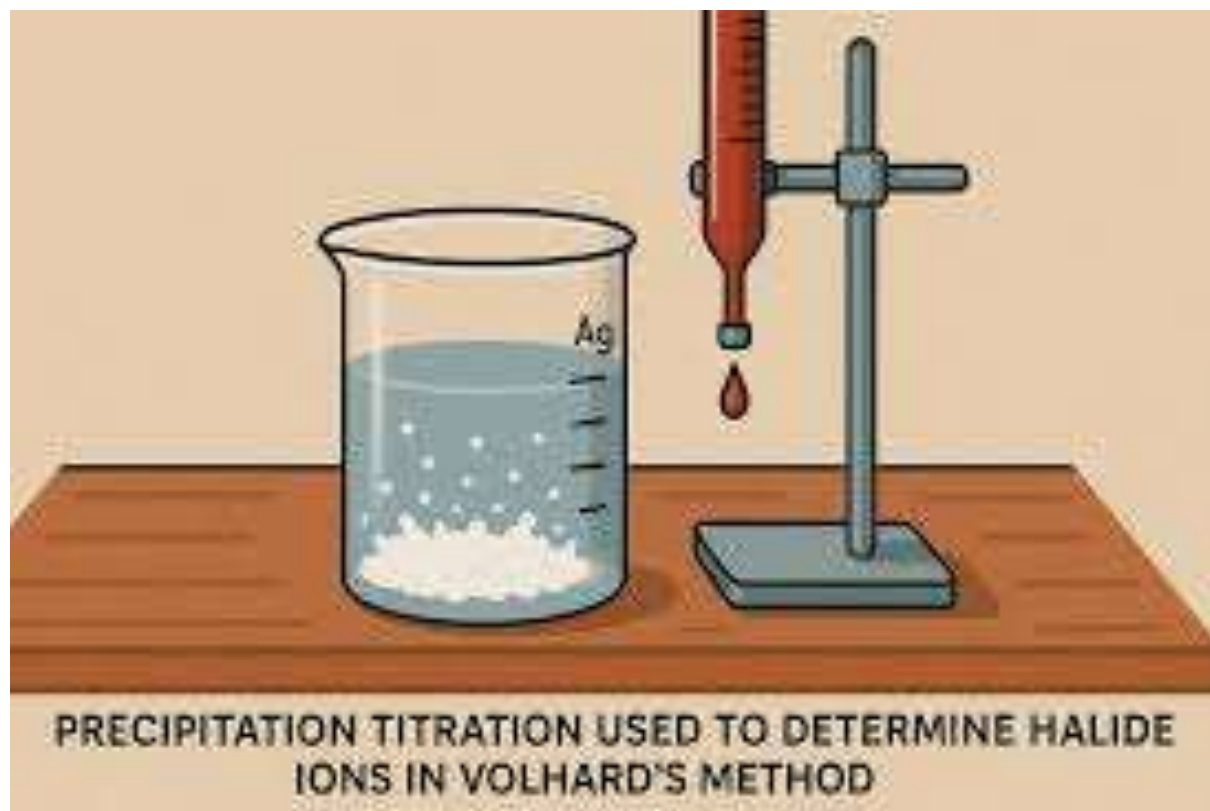
COURSE NAME: PHARMACEUTICAL CHEMISTRY

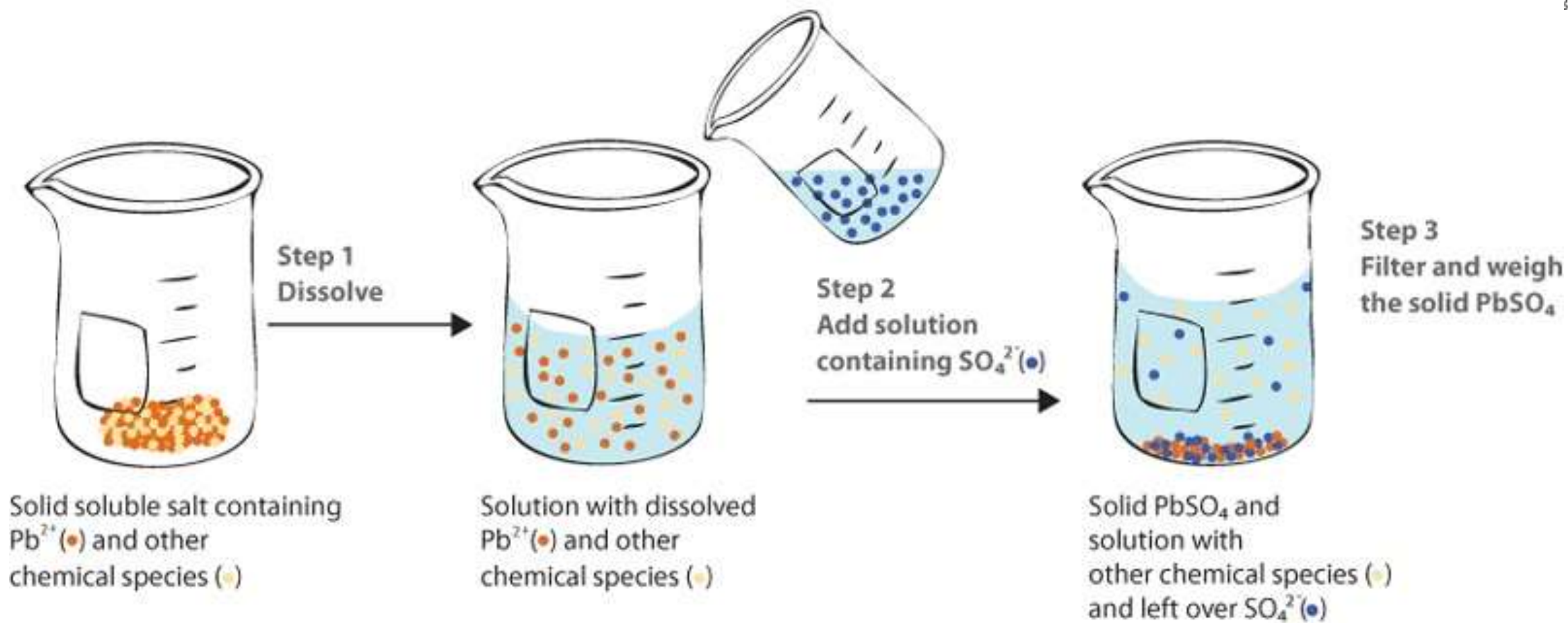
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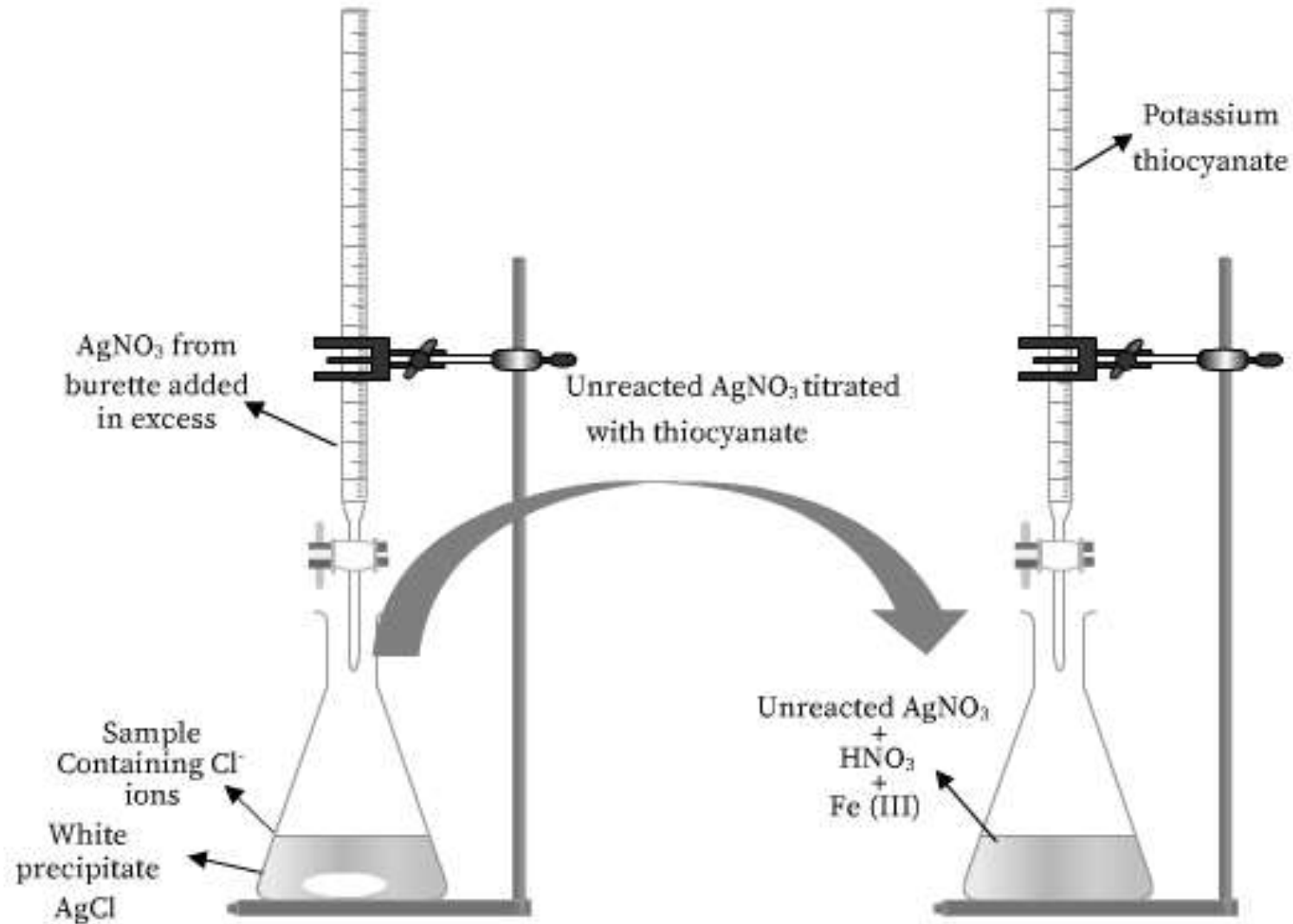
TOPIC 11 :PRECIPITATION TITRATION

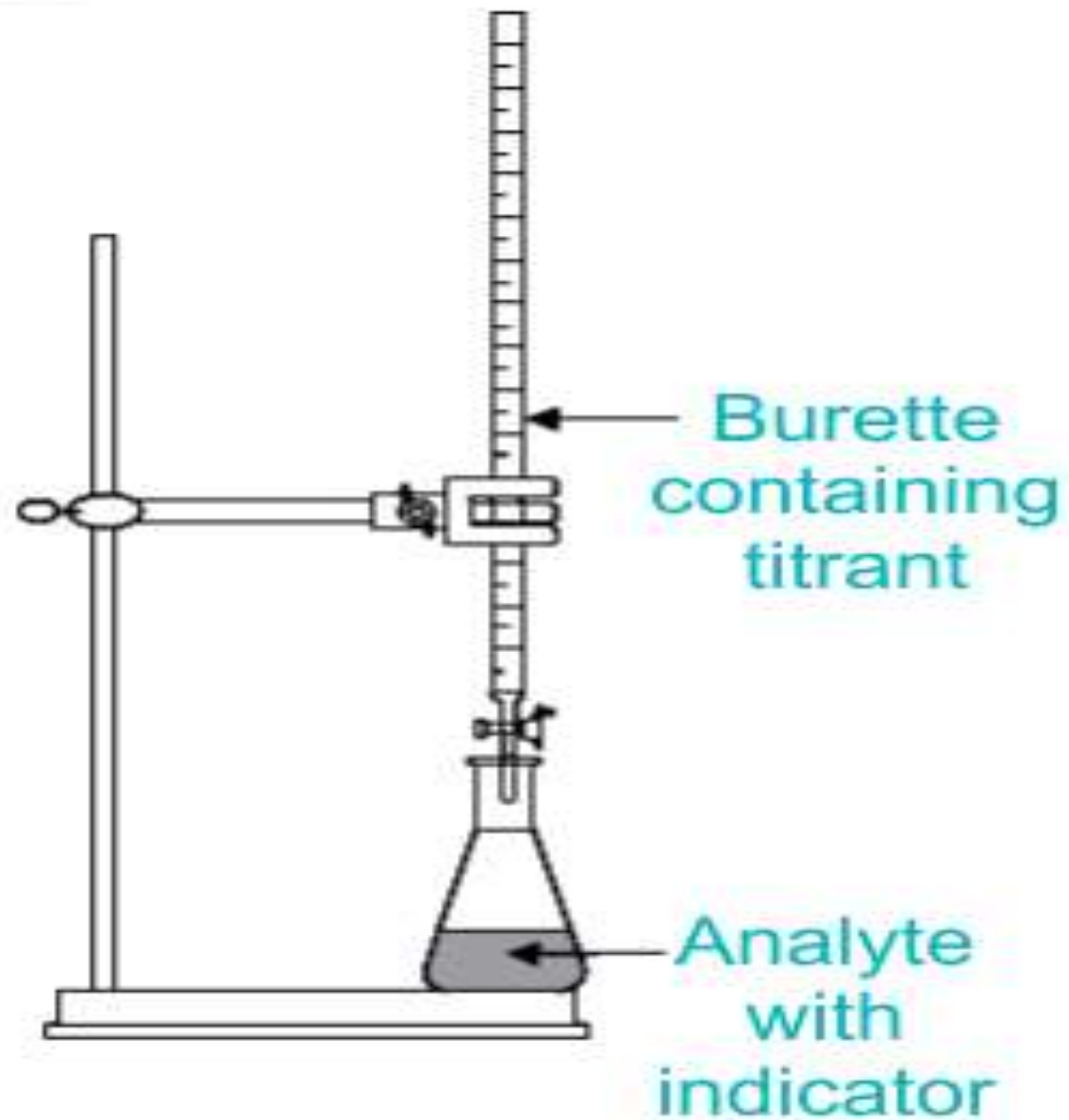
Mind Map

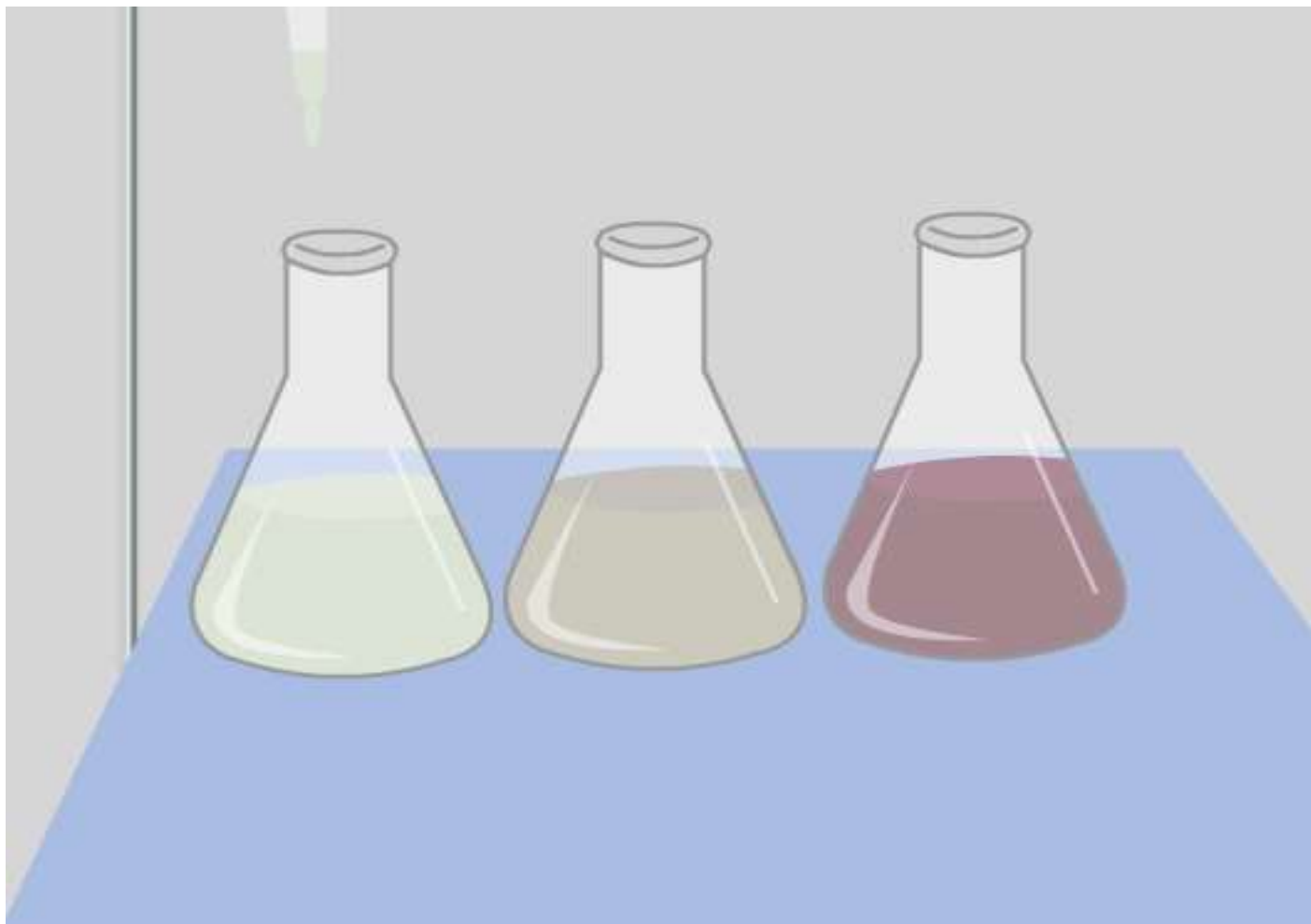
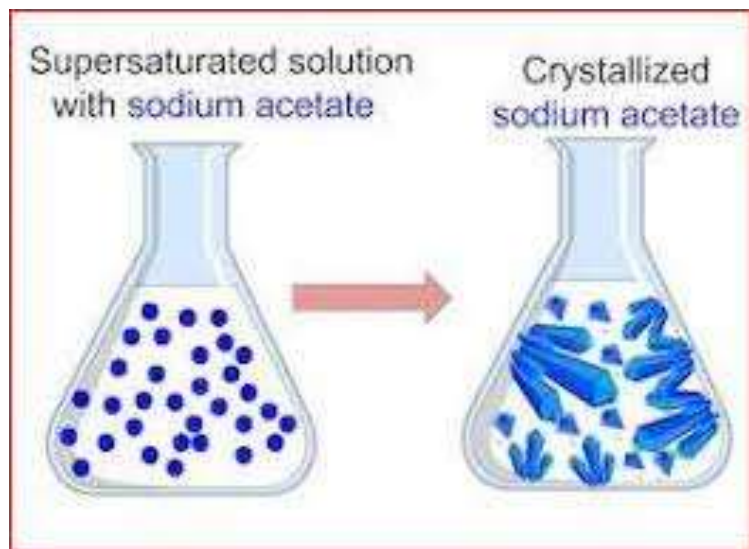








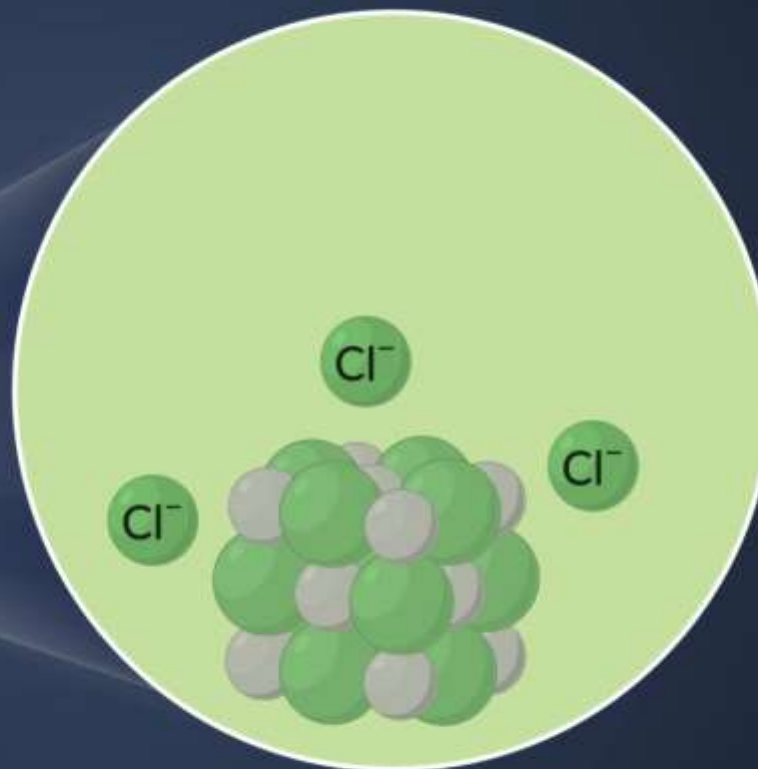


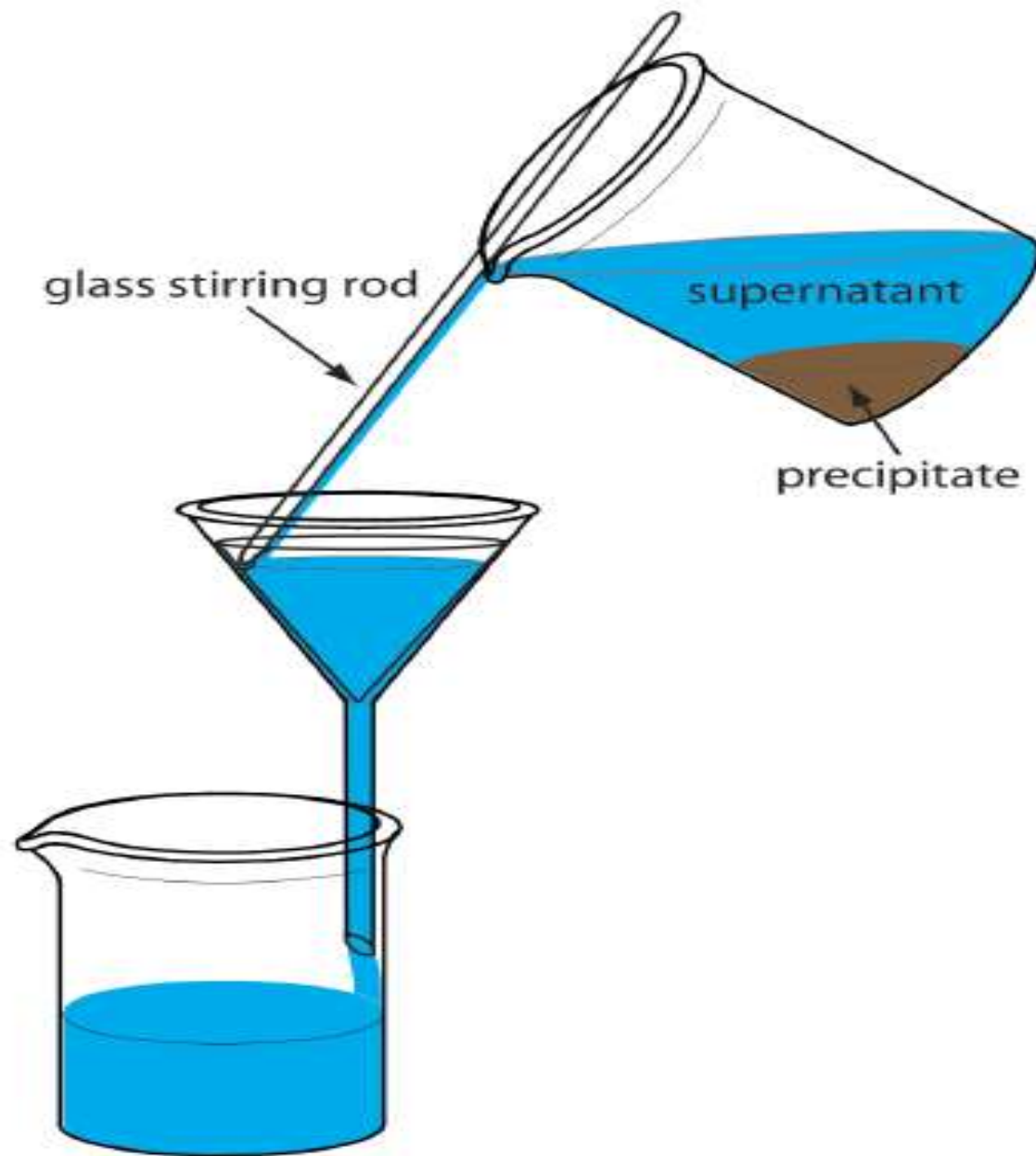


Fajans Method



Before the
equivalence point



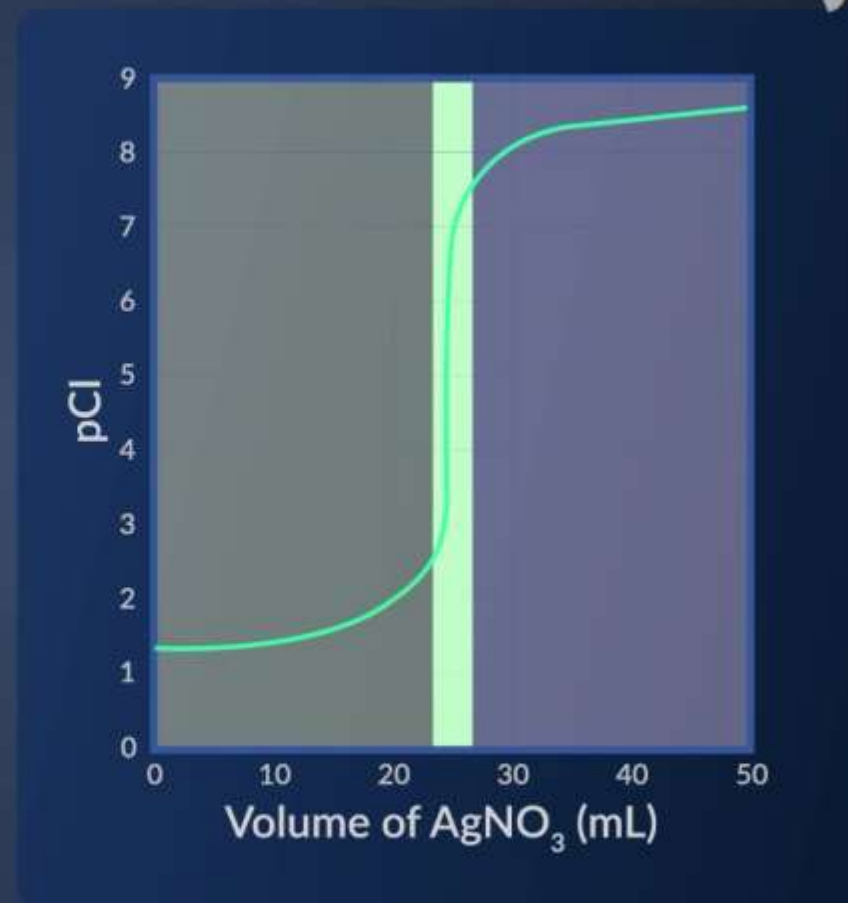


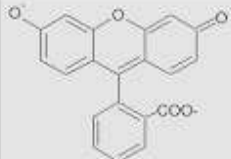
Equivalence region



$$[\text{Ag}^+] = [\text{Cl}^-]$$

$$K_{\text{sp}} = [\text{Ag}^+][\text{Cl}^-]$$



Indicators	End point	Structure	pH range	Titrand
Fluorescein	Yellowish green to pink		7-8	Cl, Br, I

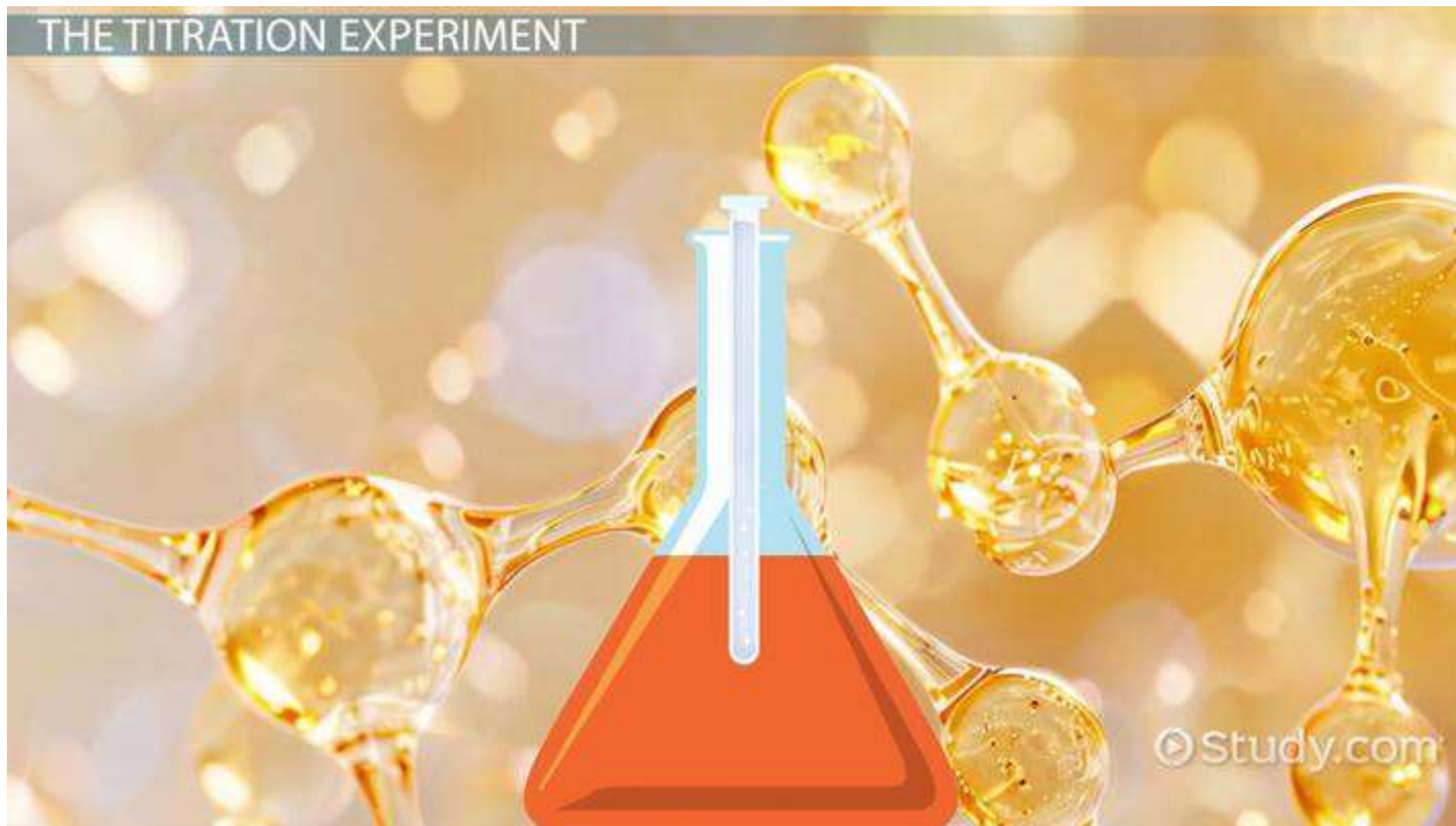
Indicator of Precipitation Titration

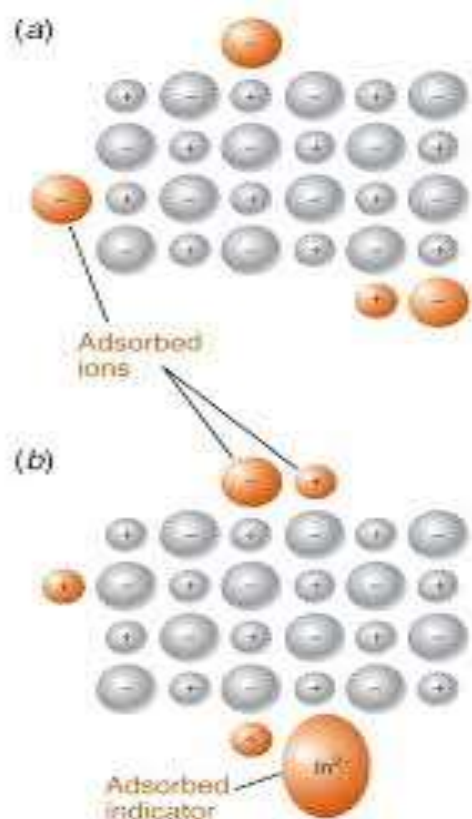
☐ Potassium Chromate (K_2CrO_4)



☐ Silver Chromate (Ag_2CrO_4)

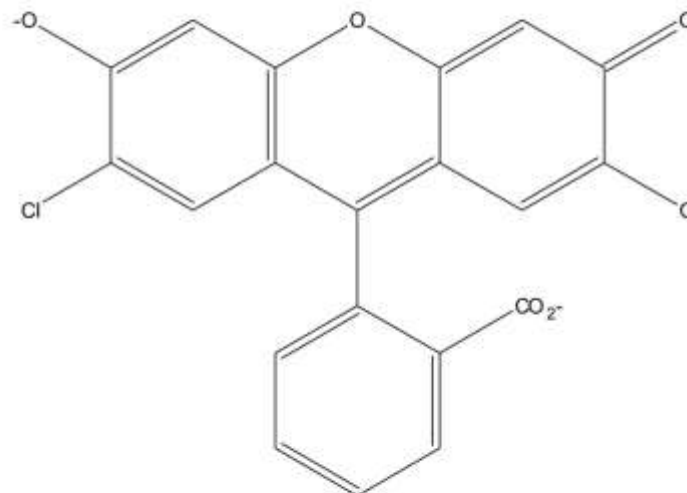






FAJANS TITRATION

Uses adsorption indicator



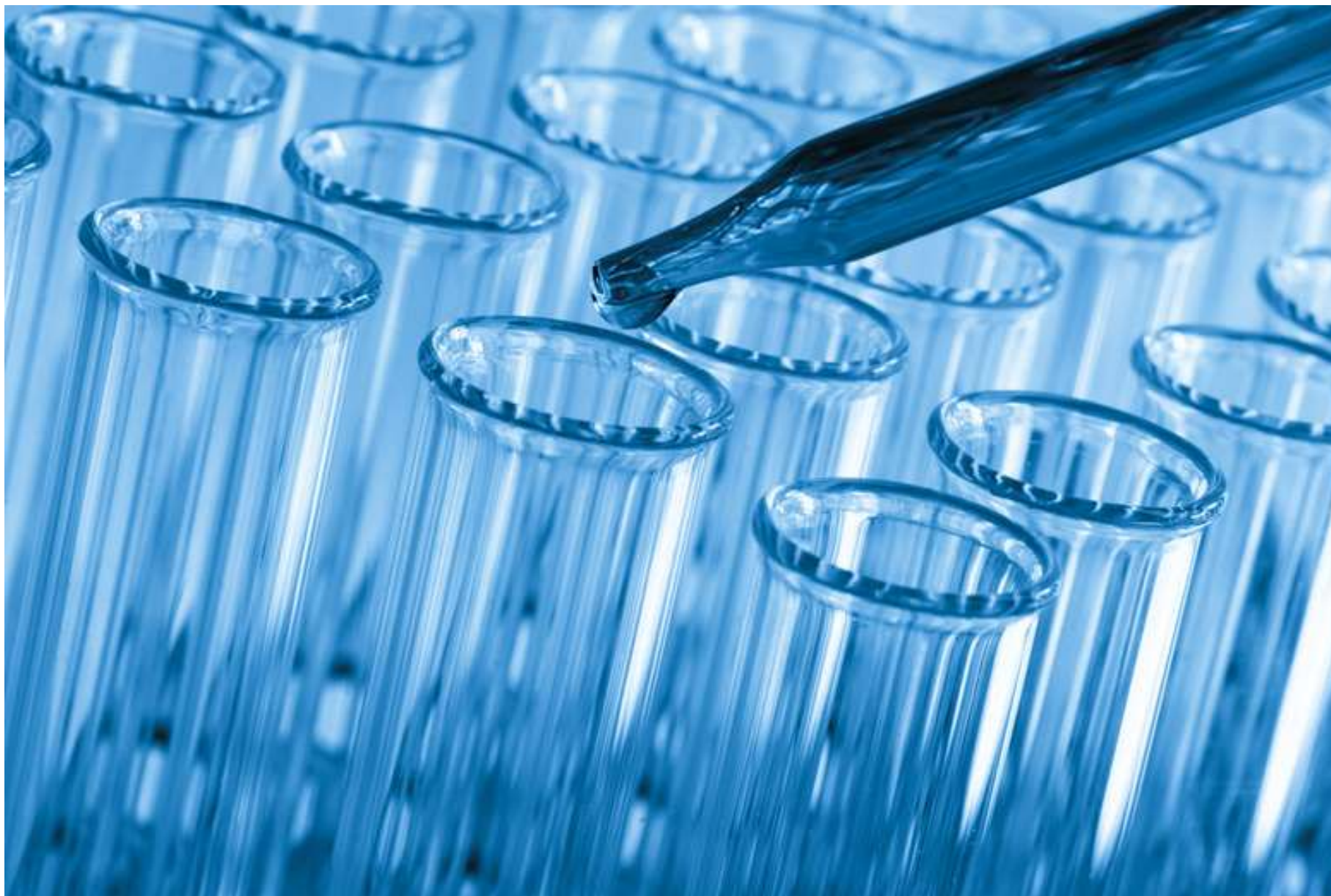
Dichlorofluorescein is green in solution but pink when adsorbed on AgCl



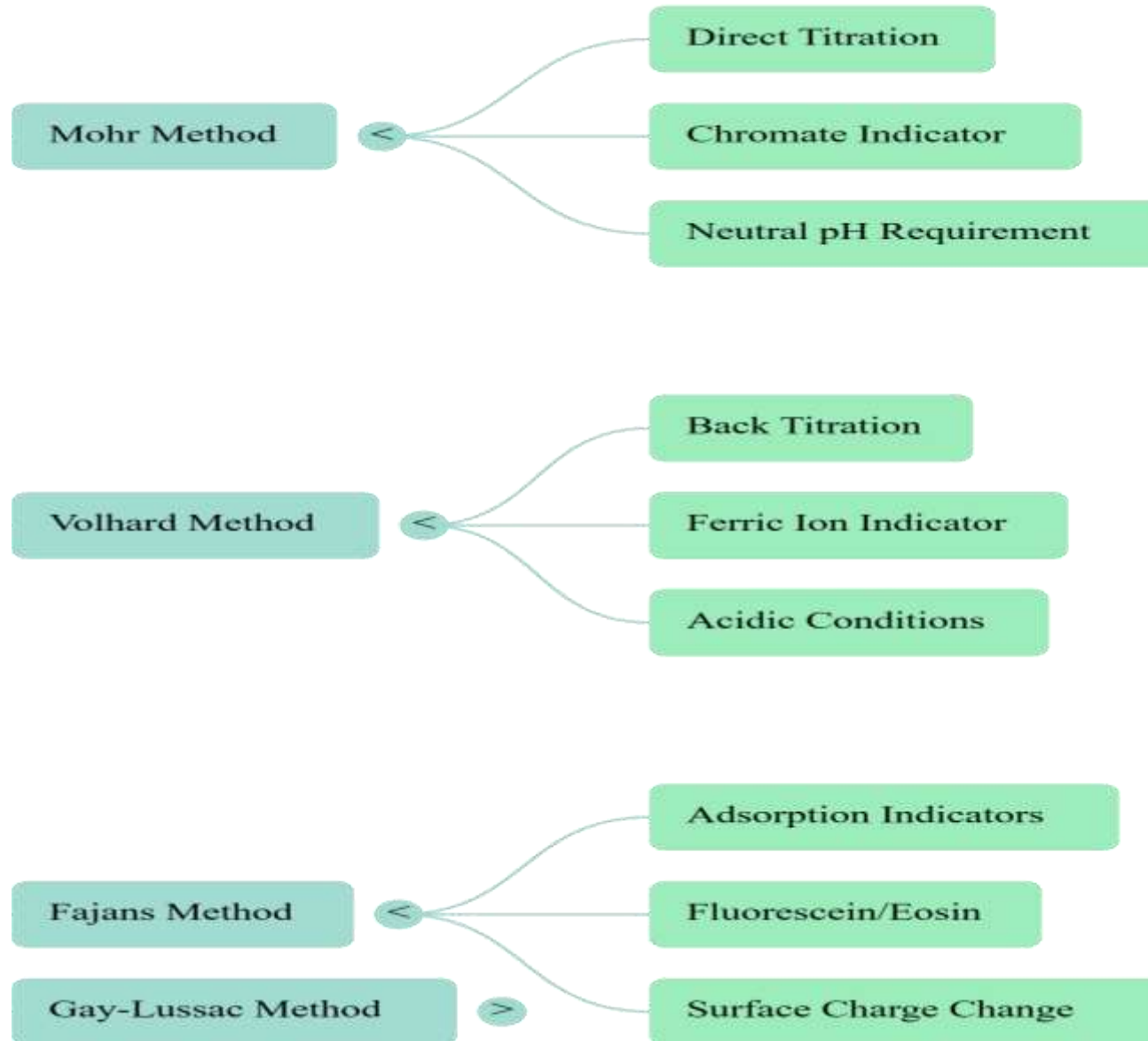
Cl⁻ solution

*Precipitating
agent*

*White
precipitate*

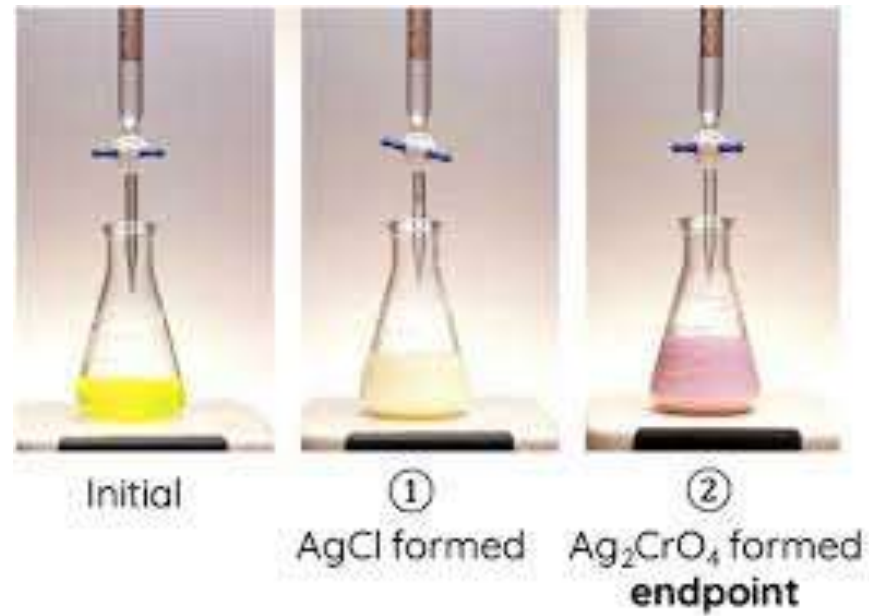


SUMMARY

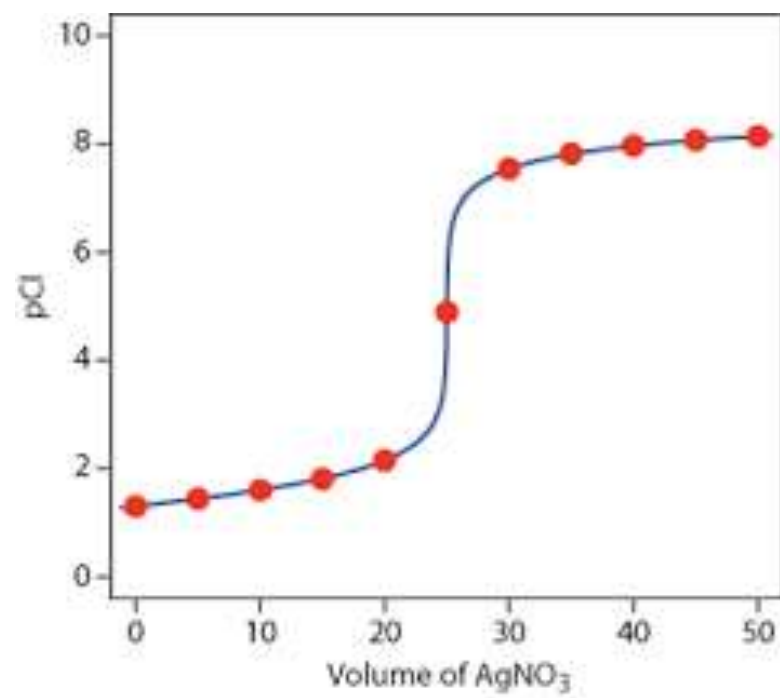


ASSESSMENTS

1. Write a note indicators used in precipitation titration ?



2. Define the picture given below?



3. What are the reactions observed in completion of the titration?



REFERENCES

- ***Fundamentals of Analytical Chemistry*** by **D. A. Skoog, D. M. West, F. J. Holler, & S. R. Crouch**: A classic text detailing methods like Mohr's, Volhard's.
- ***Analytical Chemistry*** by **G. D. Christian, P. K. Dasgupta, & K. A. Schug**: Another comprehensive analytical chemistry book.
- ***A Textbook of Pharmaceutical Analysis*** by **Mrs. K. Bindhu Rajan, Dr. B. Rajan, Dr. Nihar Ranjan Kar, Mr. Y. Rajendra**: Another resource for pharmaceutical analysis.

THANK YOU