

# **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.*

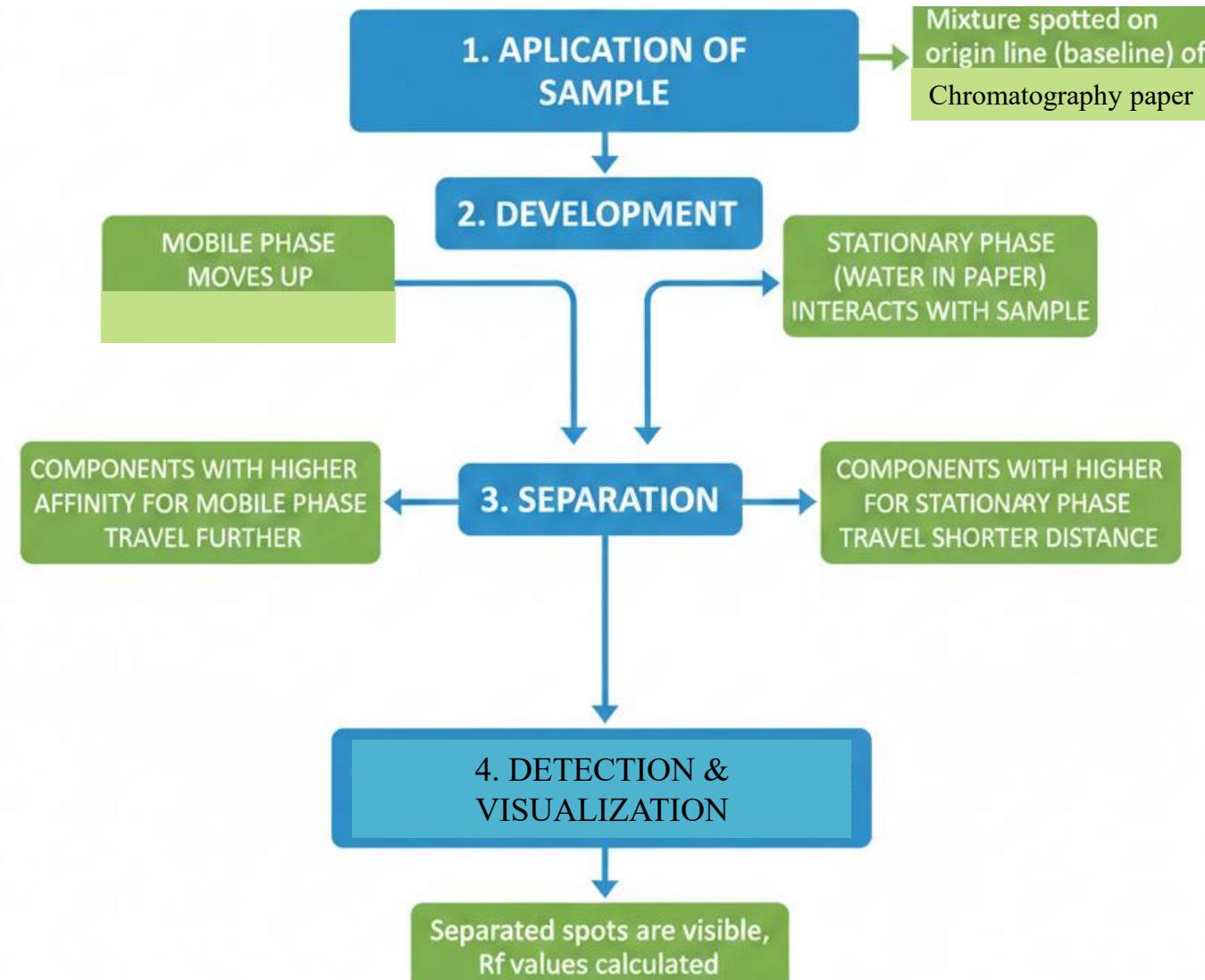
**Coimbatore -641035**

**COURSE NAME: INSTRUMENTAL METHODS OF ANALYSIS (BP 701 T)**

**VII SEM/ IV YEAR**

**TOPIC 25: PAPER CHROMATOGRAPHY**

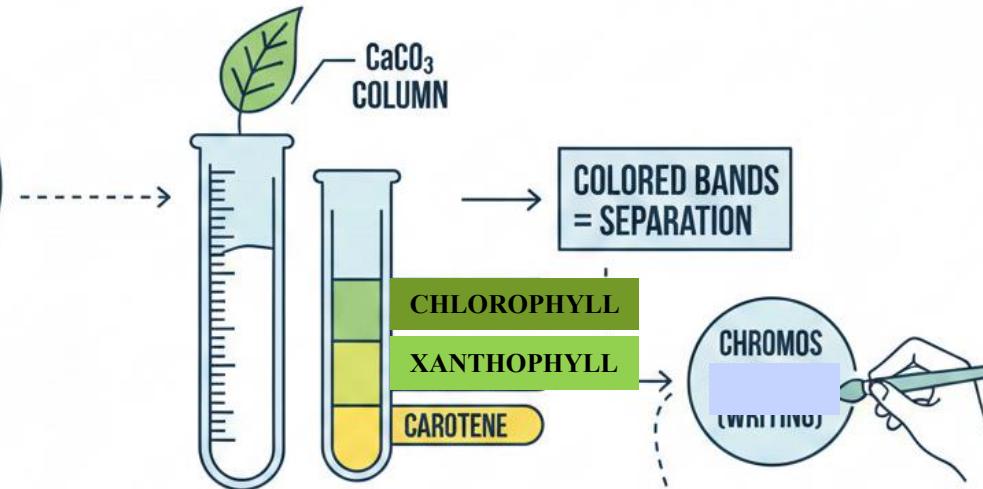
# MINDMAP:



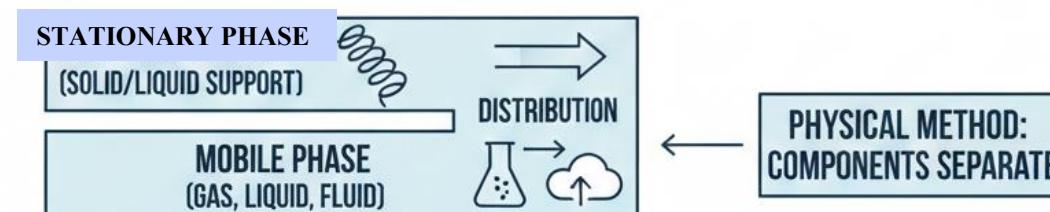
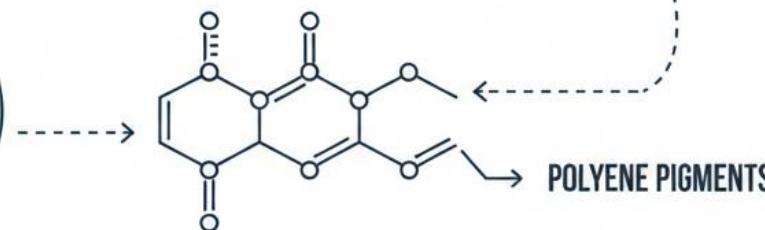
# Introduction to Chromatography



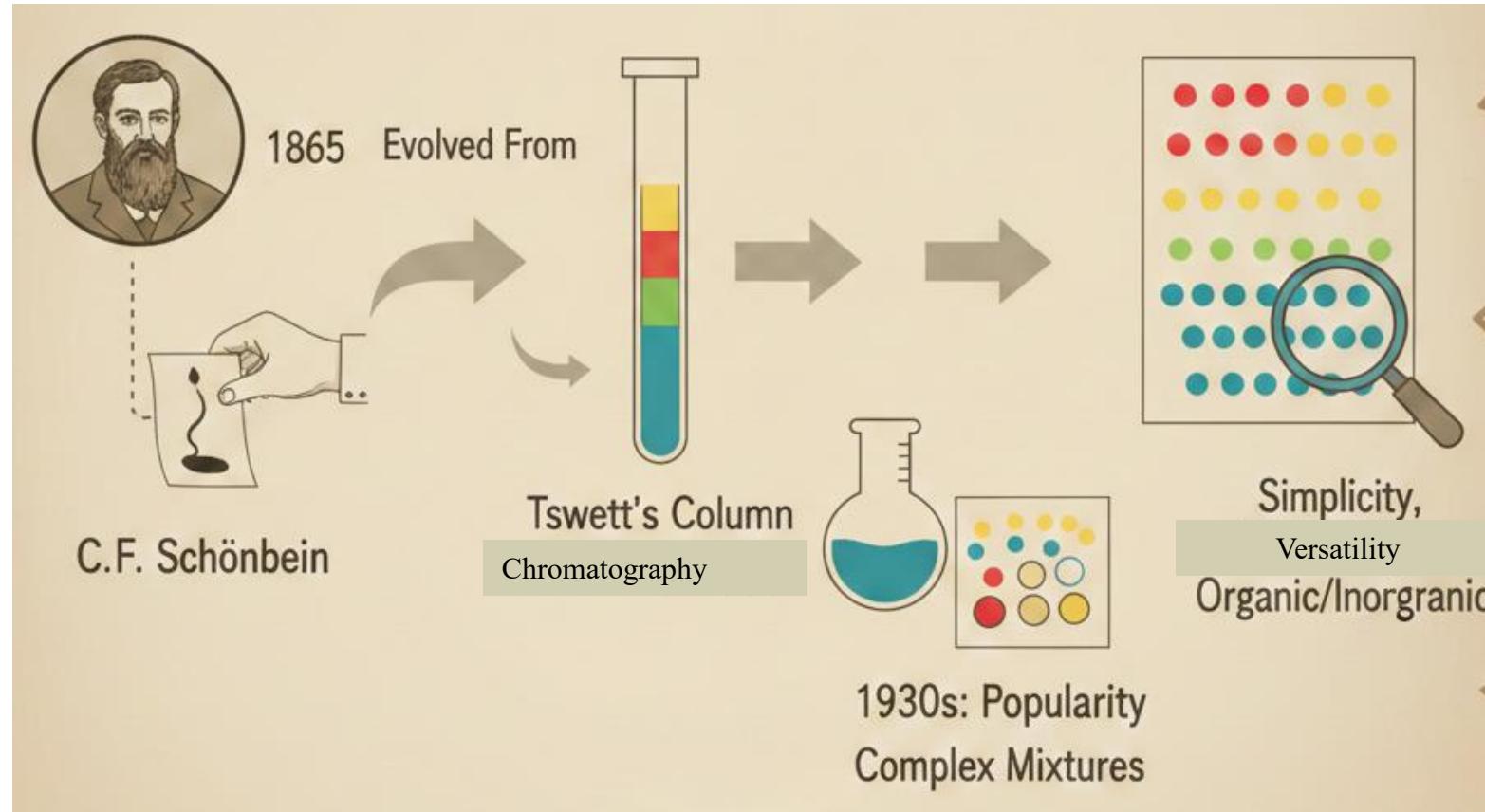
MIKHAIL TSWETT  
(1903)



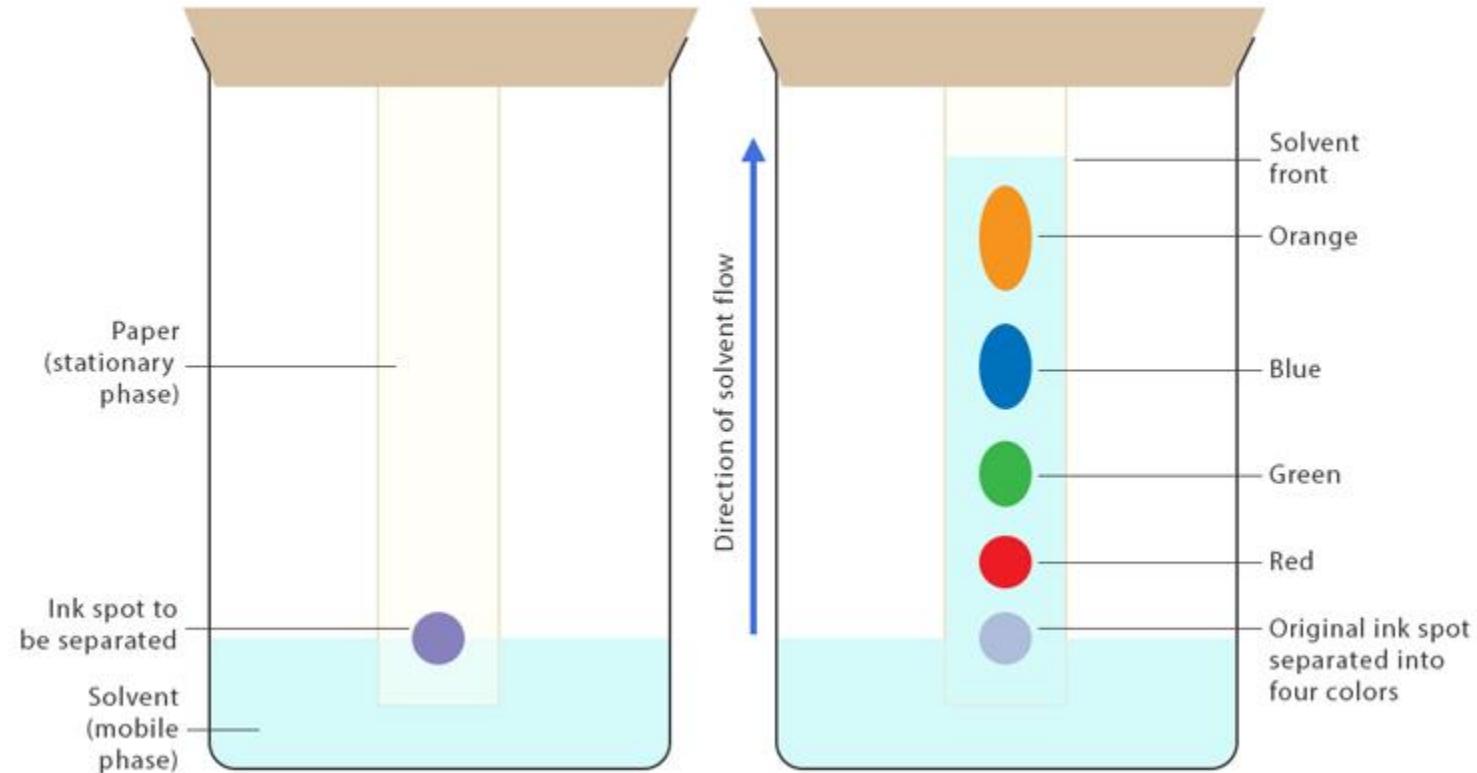
KUHN & LEDERER  
(1931)



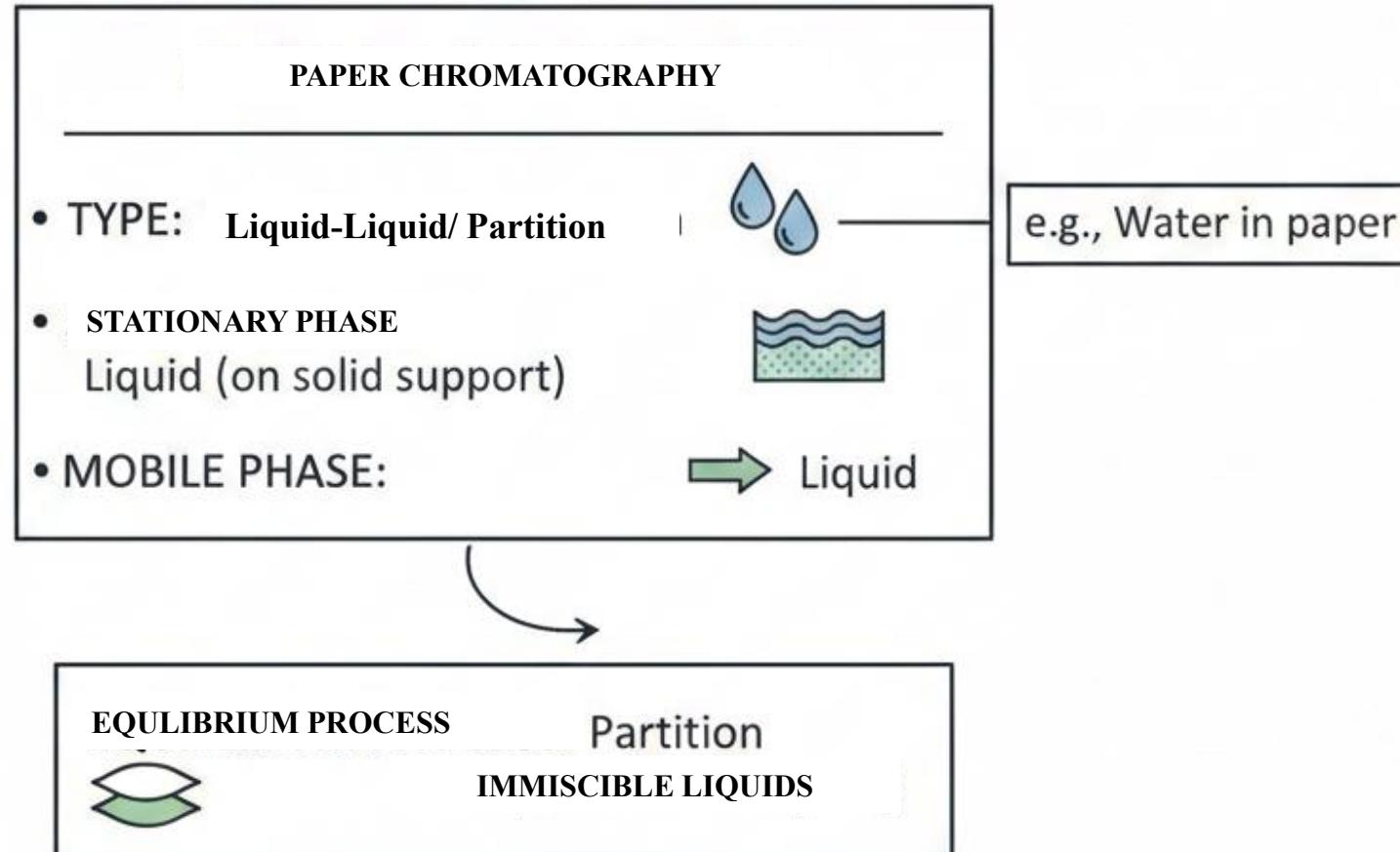
# History of PC



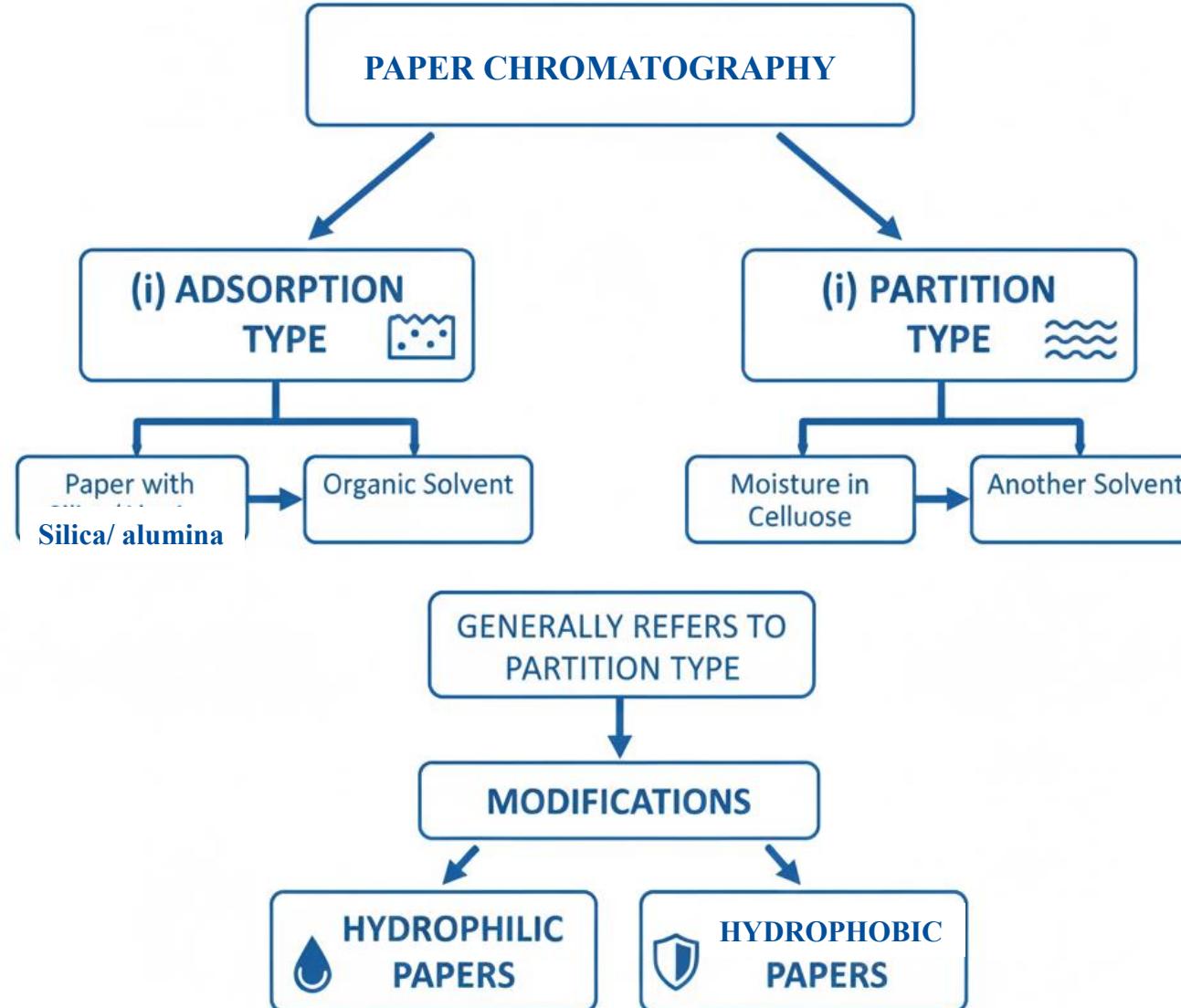
# Paper Chromatography



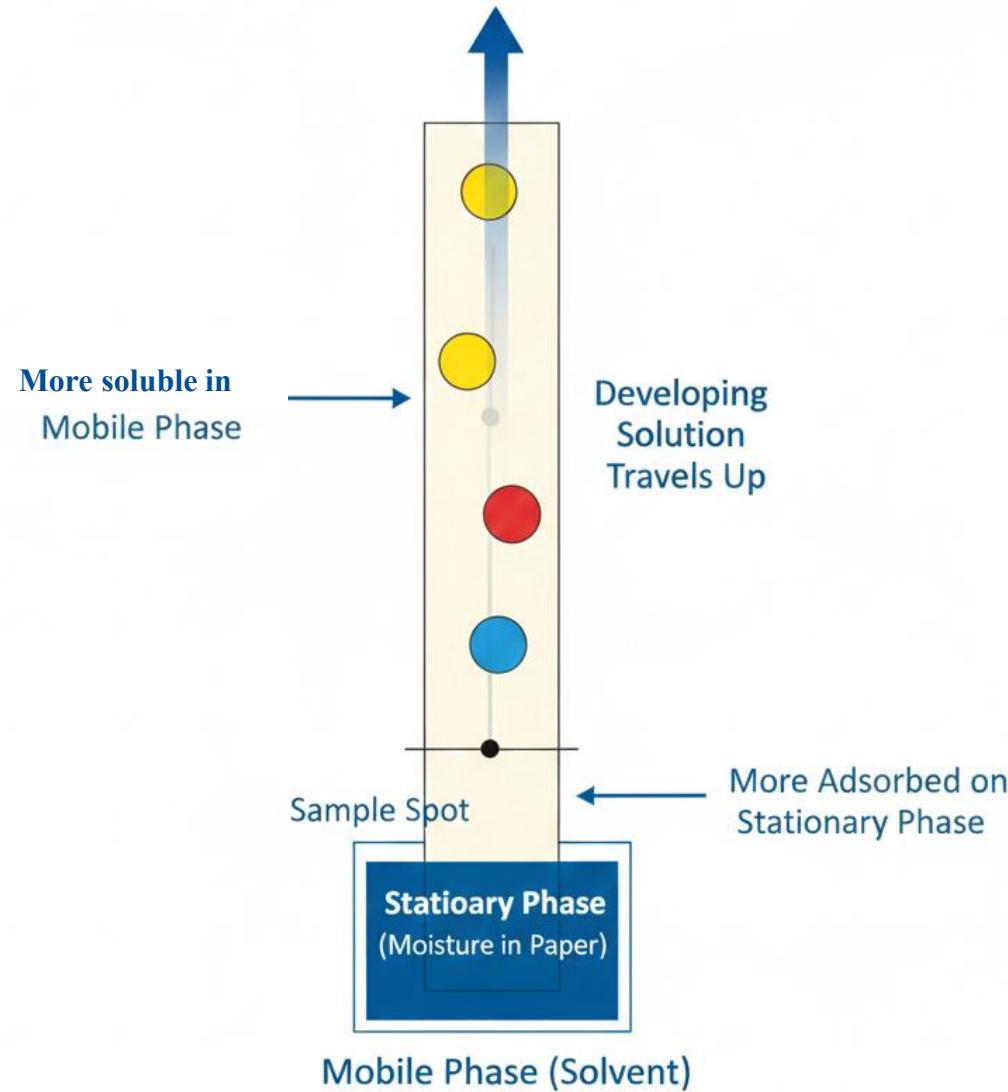
# Phases of paper chromatography



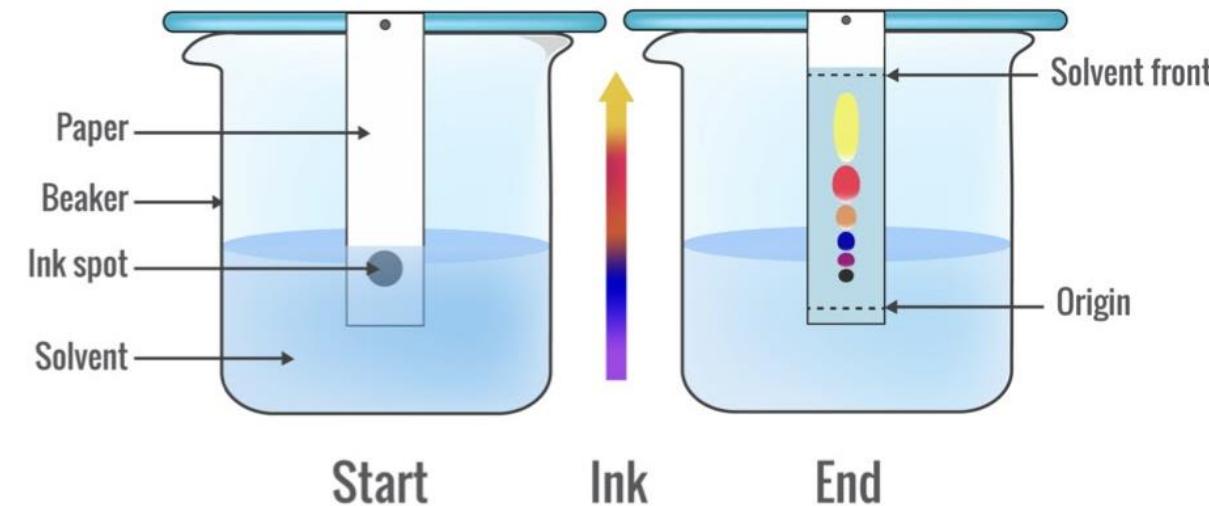
# Types of Paper Chromatography



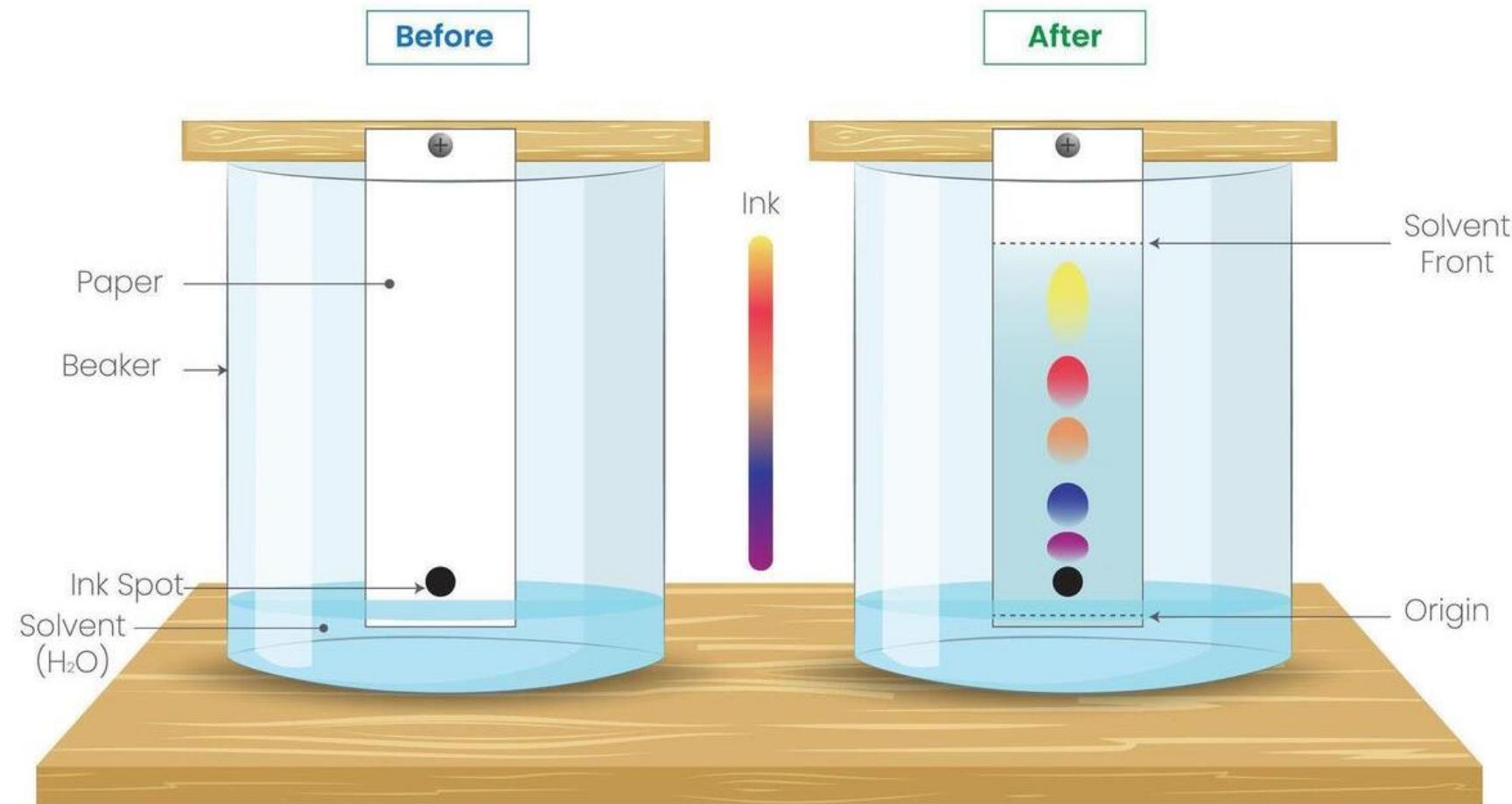
# Principle of Separation



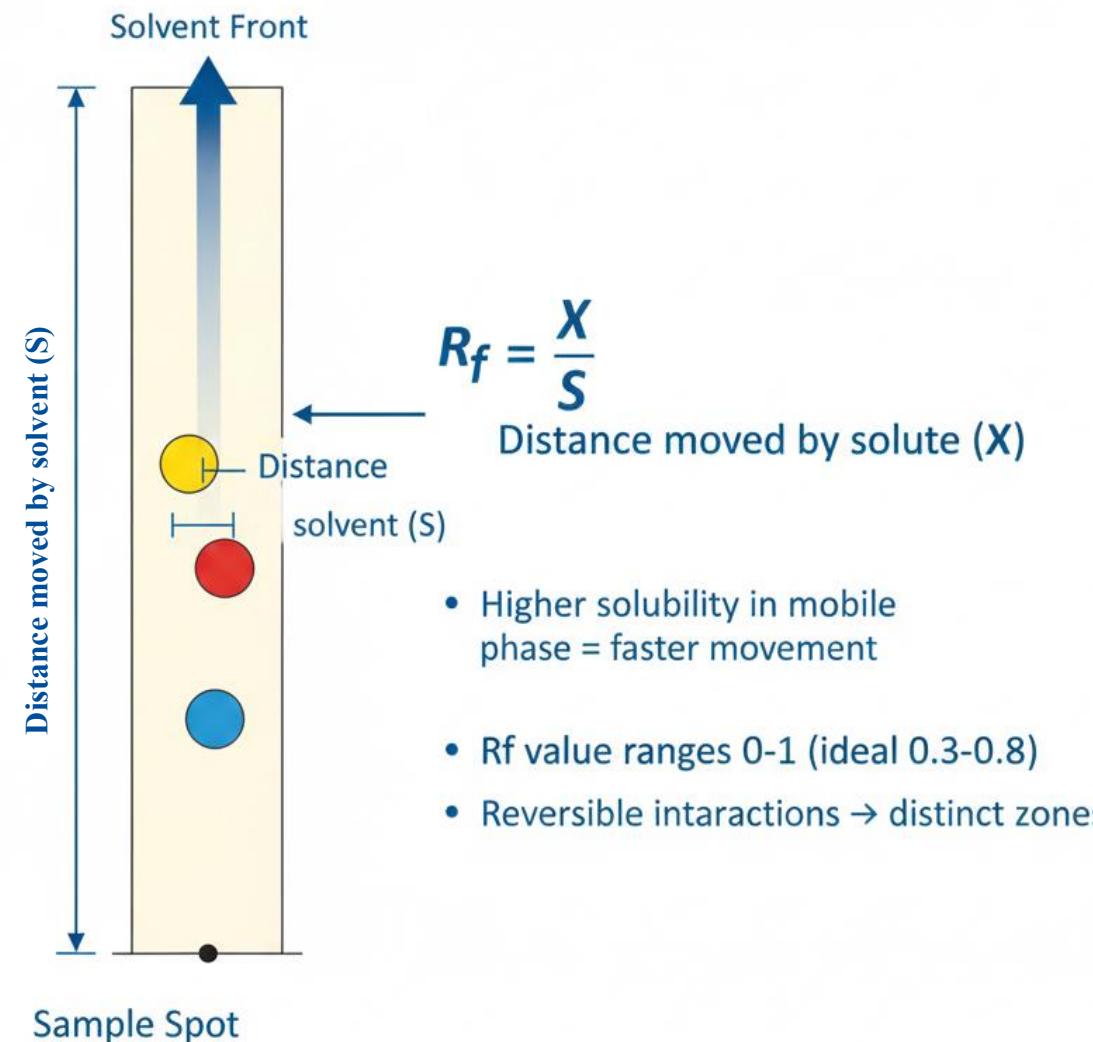
# Separation process



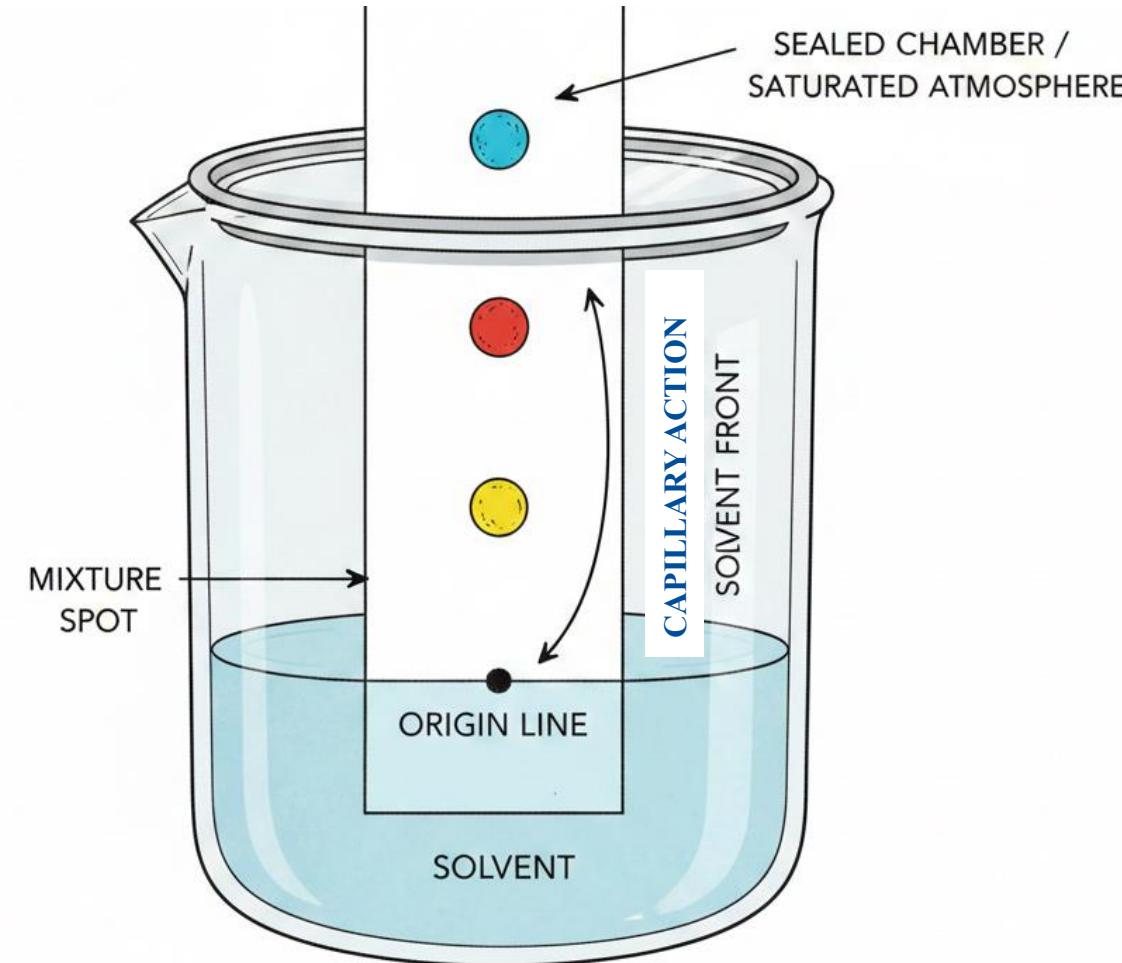
# Development



# R<sub>f</sub> value



# Summary



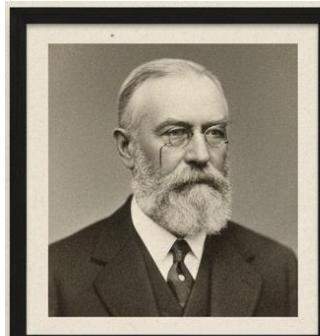
## Assessment

1. Who first introduced paper chromatography?

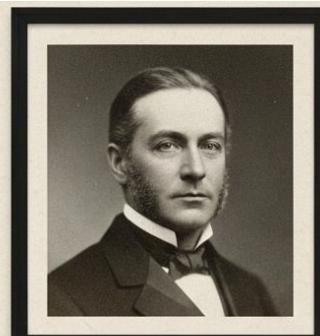


# Assessment

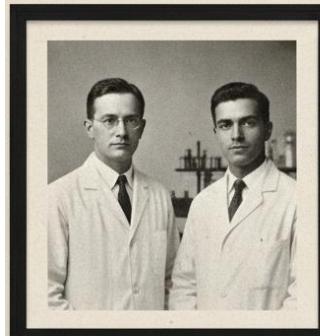
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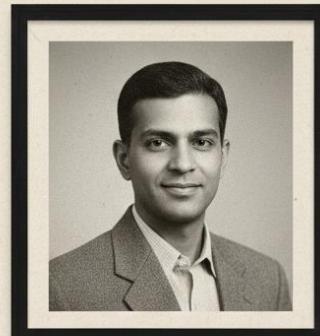
A) MIKHAIl Tswett



B) Christian FRIEDRICH SCHÖNBEIN



C) KUHN and LEDERER



D) Dr. S. K. PATRO

## Assessment

2. In paper partition chromatography, the stationary phase is primarily



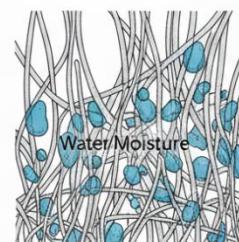
# Assessment

2. In paper partition chromatography, the stationary phase is primarily

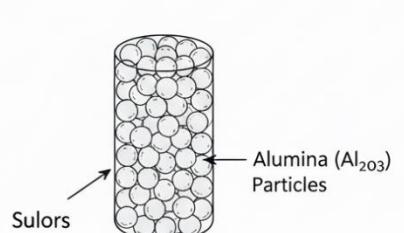
**A) SILICA GEL IMPREGNATED ON PAPER**



**B) WATER/MOISTURE IN CELLULOSE FIBERS**



**C) ALUMINA**



**D) ORGANIC SOLVENTS (e.g., PETROLEUM ETHER)**



## Assessment

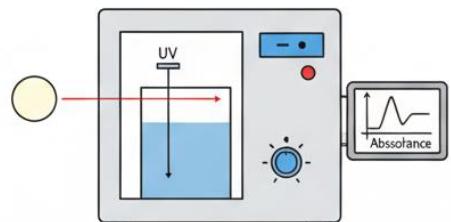
3. Colored spots in paper chromatography (e.g., plant pigments) can be detected by:



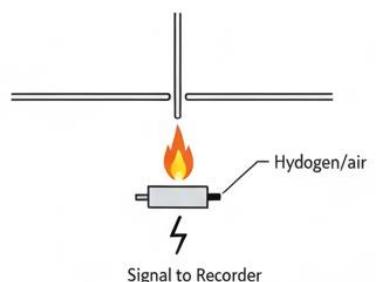
# Assessment

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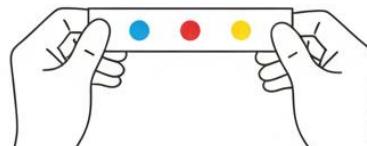
A) UV SPECTROPHOTOMETER



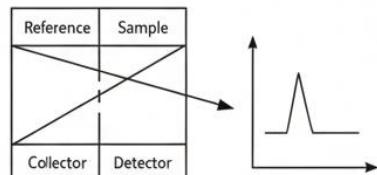
C) FLAME IONIZATION DETECTOR (FID)



B) DIRECT VISUAL OBSERVATION



D) REFRACTIVE INDEX DETECTOR (RID)



## References

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4. Beckett AH, Stenlake JB. Practical pharmaceutical chemistry. 4th ed. London: Athlone Press; 1988.
5. Chatwal GR, Anand SK. Instrumental methods of chemical analysis. Mumbai: Himalaya Publishing House; latest edition.
6. Willard HH, Merritt LL, Dean JA, Settle FA. Instrumental methods of analysis. 7th ed. New Delhi: CBS Publishers; 1988.
7. Miller JM. Chromatography: concepts and contrasts. 2nd ed. Hoboken: John Wiley & Sons; 2009.
8. Connors KA. A textbook of pharmaceutical analysis. 3rd ed. New York: John Wiley & Sons; 1982.
9. Braithwaite A, Smith FJ. Chromatographic methods. 5th ed. Dordrecht: Springer; 1999.

Thank  
you!