

V. P. R. P. T. P. Science College, Vallabh Vidyanagar

Add-on Certificate Courses

Course Title	:“Separation Techniques: Chromatography”
Coordinator	: Dr. Pravinkumar M Patel., HOD, Industrial Chemistry Department.
Department	: Industrial Chemistry
Duration	: 30 Hours (Theory & Practical)

Content:

Introduction, Role Of Separation Techniques In Chemical Analysis, Different Techniques For Separation Of Mixture, Introduction To Chromatography, Chromatography Terms, Classifications Of Chromatography, High Performance Liquid Chromatography(HPLC), Gas Chromatography (GC), Supercritical Fluid Chromatography (SFC), Size – Exclusion Chromatography (SEC): Principle , Mechanism , Types , Instrumentation & Applications. Experiments For Paper Chromatography, TLC, Colum Chromatography. Demonstration for GC & HPLC Techniques including field Visit of concern laboratories.

Outcome of course:

- ✓ To understand the fundamentals of data analysis & various separations techniques.
- ✓ Describe the operating principles & Instrumentation of the various separation techniques, including gas chromatography and liquid chromatography.
- ✓ Hands on practice of GC & HPLC.
- ✓ To understand the significance, quality, and limitations of the results produced by the various separation techniques.

Reference:

- ✓ Vogel’s text book of QUANTITATIVE CHEMICAL ANALYSIS. By Jeffery, Bassett.
- ✓ Instrumental methods of chemical analysis by B.K Sharma
- ✓ Introduction to chemical analysis – by R.D Braun, Mcgraw Hill book Co. 2nd edition 1995.
- ✓ Analytical chemistry – by G.D Christian. John Wiley & Sons. 3rd edition.