

Gel Permeation Chromatography (GPC)



Gel permeation chromatography (GPC) is a separation technique in which particles are separated based on their molecular sizes, or in more technical term, hydrodynamic volume (size in solution). The stationary phase in GPC consists of porous particles with different pore diameters packed into a column. When the sample is passing through the porous media, larger molecules that can not access the pores will pass quickly through the column and elute first. Smaller molecules penetrate into some of the porous structure and elute at longer retention times. GPC, also called size exclusion chromatography, affords a rapid method for the separation of oligomeric and polymeric species.

GPC is used in the separation of biopolymers such as proteins, enzymes, nucleic acids, polysaccharides and hormones. It can be used to determine the molecular weight averages and molecular weight distribution of synthetic and naturally occurring polymers.

GPC Model	Detectors	Location
Waters	Dual λ Absorbance (UV)	K 113
	Refractive Index (RI)	

For more information and services, please contact:

Science Officer
Division of Instruments and MUPA
School Of Chemical Sciences, USM, 11800, Penang.

Tel: +60-653 4058 Fax: +60-657 4854 E-mail: MUPA@usm.my