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## Aqueous Normal phase (ANP) defined & compared to Reversed Phase & Normal Phase in HPLC

Aqueous Normal Phase (**ANP**) is probably the newest HPLC technique or at least the latest to be investigated well. Often we are asked what is ANP. Below is a link with more explanation than this article can provide.

### [What is Aqueous Normal Phase](#)

**Normal-Phase Chromatography** is defined as a chromatographic phase that will increase the retention of a target compound as the mobile phase becomes less polar (a decrease in concentration of the most polar solvent, often water) conversely the compound has longest retention in a non-polar solvent such as 100% hexane.

**Reverse-Phase Chromatography** is the opposite or the reverse; there is an increase in retention time of the target compounds as the mobile phase becomes more polar (increase concentration of the most polar solvent, often water).

**Aqueous Normal-Phase Chromatography** will be defined as a normal phase separation pattern using the reverse phase solvents Water and Acetonitrile.

In ANP, the maximum retention time of target compounds can be up to 100% acetonitrile (least polar solvent) and as you increase the polar solvent content (Aqueous), the retention reduces to a minimum when the mobile phase is at low concentrations of Acetonitrile.

### [Wikipedia definition of ANP](#)



**Attachments:**

**WP\_AqueousNormalPhase.pdf** 0.2 Mb [Download File](#)