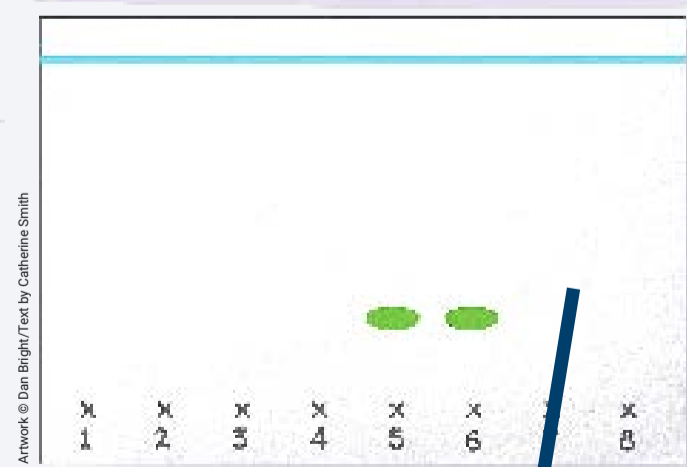
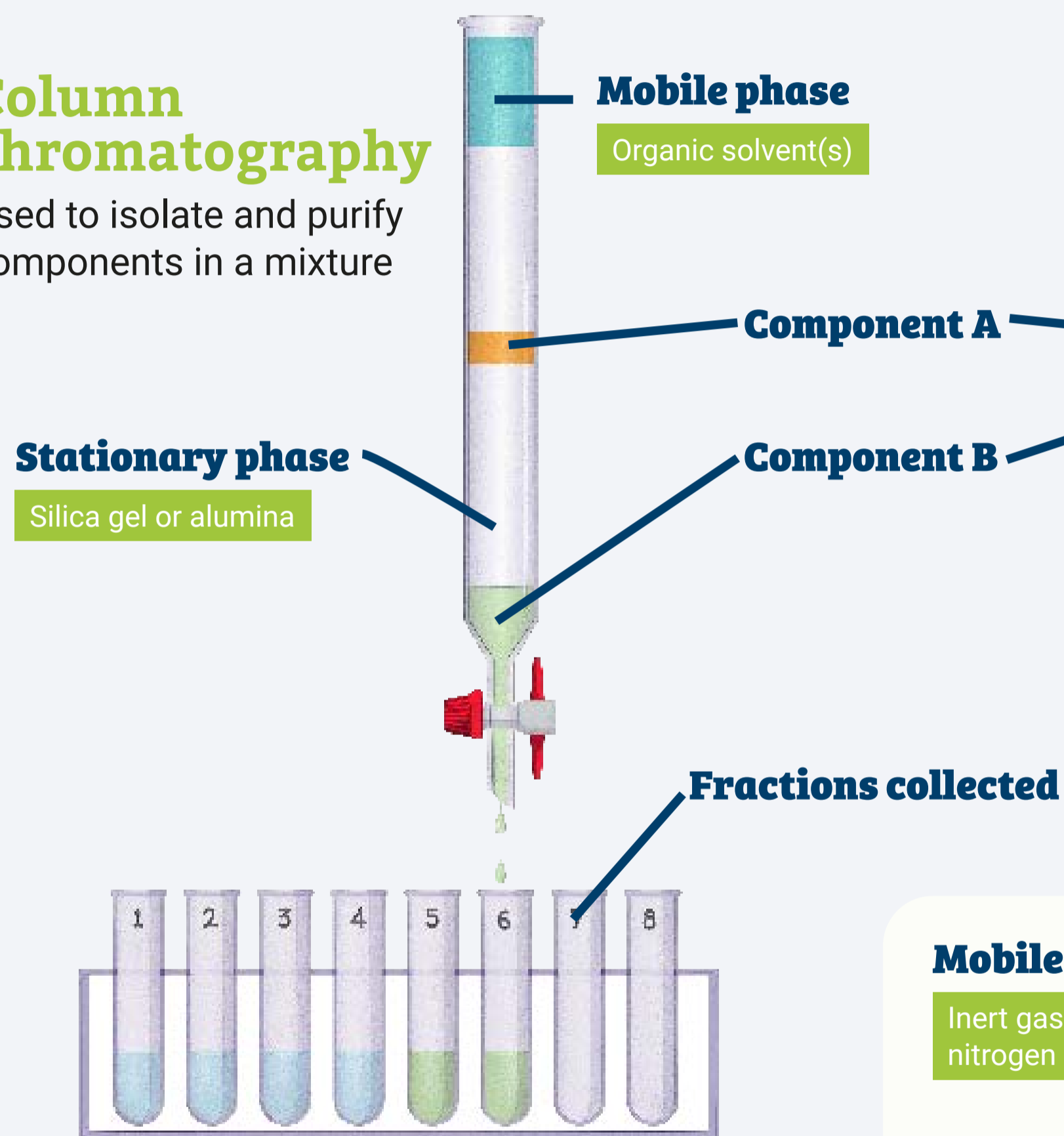


# Chromatography in commercial applications

## Column chromatography

Used to isolate and purify components in a mixture



**Results analysed**

By thin-layer chromatography

## Thin-layer chromatography

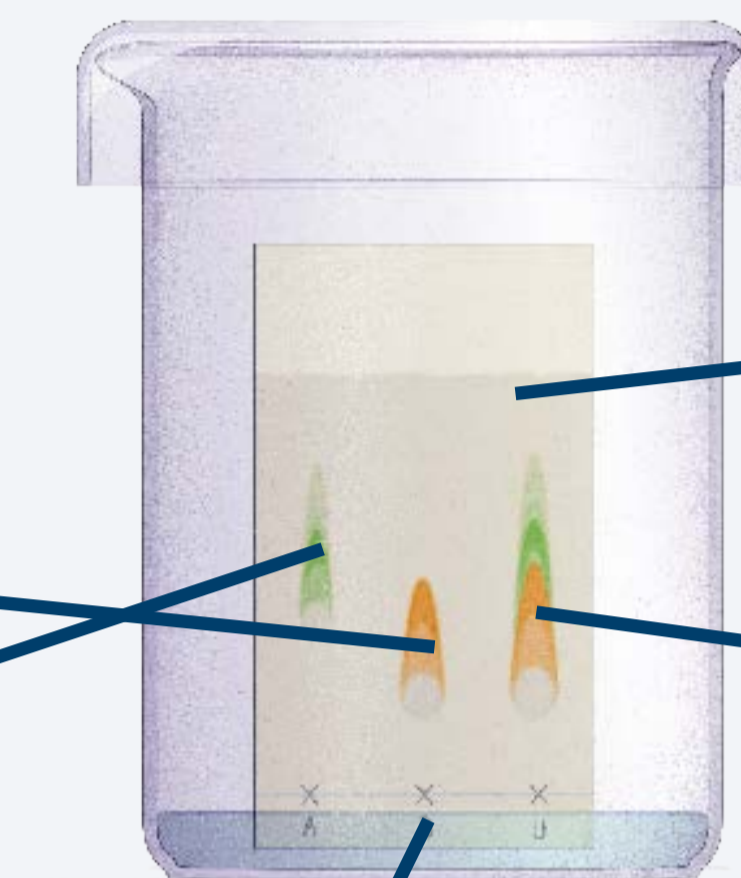
Used for analysis

**Stationary phase**

Silica gel or alumina on a glass, metal or plastic backing

**Results analysed**

By comparing  $R_f$  values

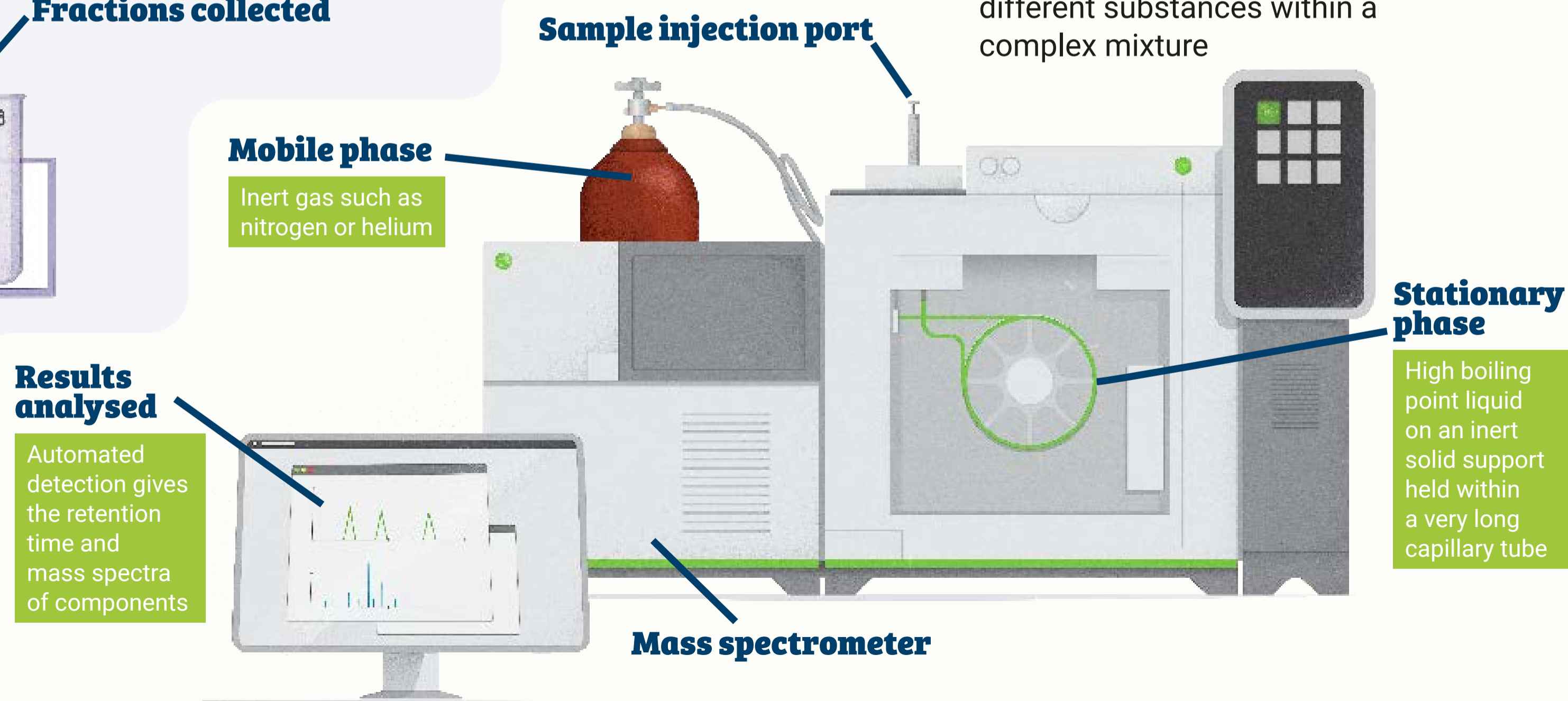


**Mobile phase**

Organic solvent(s)

## Gas chromatography-mass spectrometry

Used for separating and identifying different substances within a complex mixture



**Mobile phase**

Inert gas such as nitrogen or helium

**Sample injection port**

**Stationary phase**

High boiling point liquid on an inert solid support held within a very long capillary tube

**Mass spectrometer**