

# Chromatography

Questions for final exam

2021

1. Separation mechanisms in HPLC, modes of liquid chromatography
2. Chromatographic parameters (retention factor, separation factor, efficiency), the fundamental equation of chromatography and the resolution equations
3. Band broadening, the Van Deemter equation, extra-column band broadening
4. Reversed phase HPLC, stationary phases, mobile phases
5. The effect of eluent pH on the separation in RP-HPLC
6. The HPLC equipment (pump, injector, detectors)
7. Capillary column types in gas chromatography
8. Stationary phases in gas chromatography
9. GC detectors (FID, ECD, TCD, MS)
10. Quantitative analysis by gas chromatography
11. Analytical applications of gas chromatography
12. Carrier gases, injection methods for gases and liquids, headspace method and temperature programming in GC