

Basic Knowledge and Skills required for GPCh 2009, Ellwangen (Germany)

Analytical Part of the Competition

- pipetting
- solution preparation (weighing, diluting)
- pH adjustment (acid-base equilibria)
- complexometric titration (metal-ligand equilibria)
- column ion-exchange separation (preparation of resin, column filling, flow-rate adjustment)
- acid-base titration (standardisation procedure)
- pH – meter handling (calibration, electrode handling)
- potentiometric titration
- determination of the equivalence point
- measurements with spectrometer
- digestion of metals

Synthetic Part of the Competition

- basic skills in assembling chemical apparatus
- basic stoichiometry and skill in handling analytical data
- basic methods for identification and isolation of an organic or complex compound (dissolving, pipetting, cooling, extracting, drying, filtering, concentrating of samples)
- simple distillation
- fractional distillation under vacuum
- measurement of refractive index