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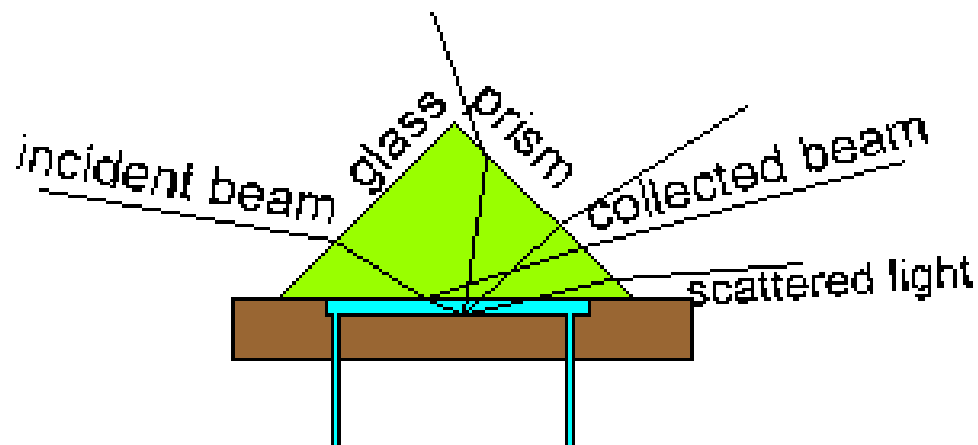


DETECTORS IN LIQUID CHROMATOGRAPHY

Refractive	Refractive index
Spectrophotometric	Absorption - UV, VIS, IR
Fluorescence	UV (Ex, Em)
ELSD	Light scattering
Corona CAD	Charge
Electrochemical	Conductivity, Red-Ox
Mass	Ionisation



Refractive Index Detector (RID)



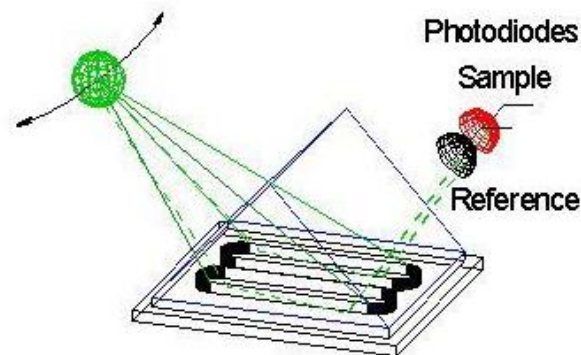
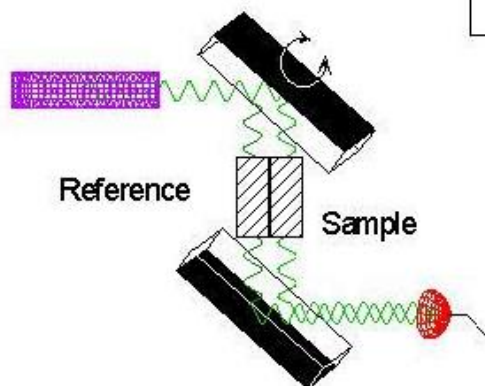
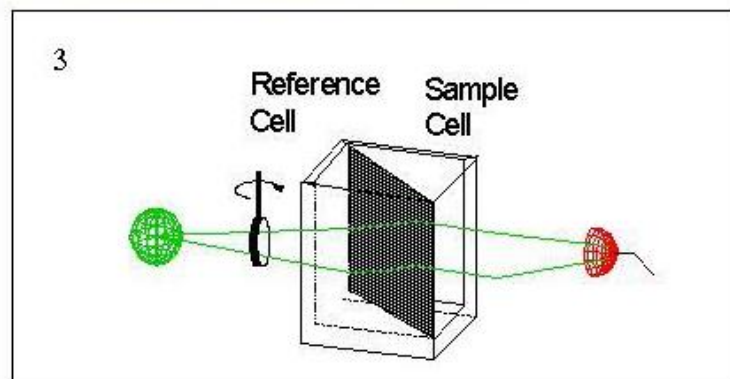
Universal

Less sensitive

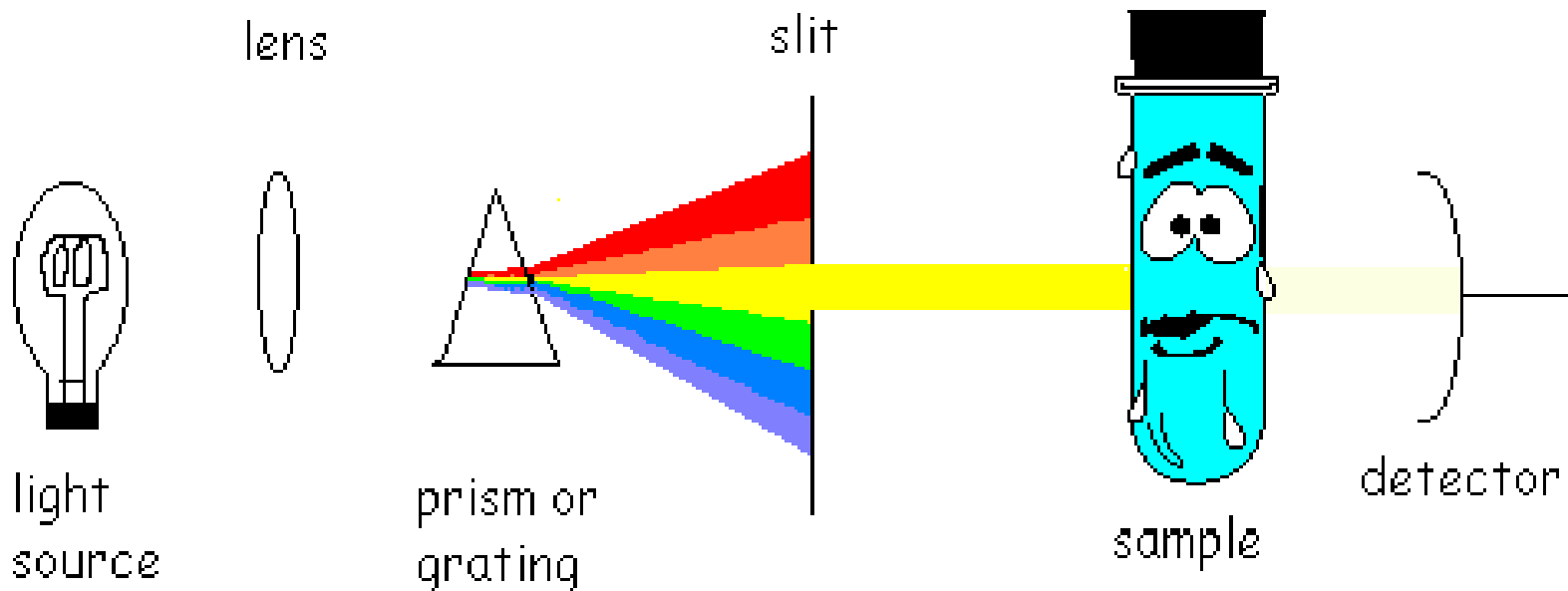
Less stable

Isocratic elution

- Beam Deflection
- Fresnel Prism
- Laser Interferometer



Spectrophotometer – conventional (UV/VIS)



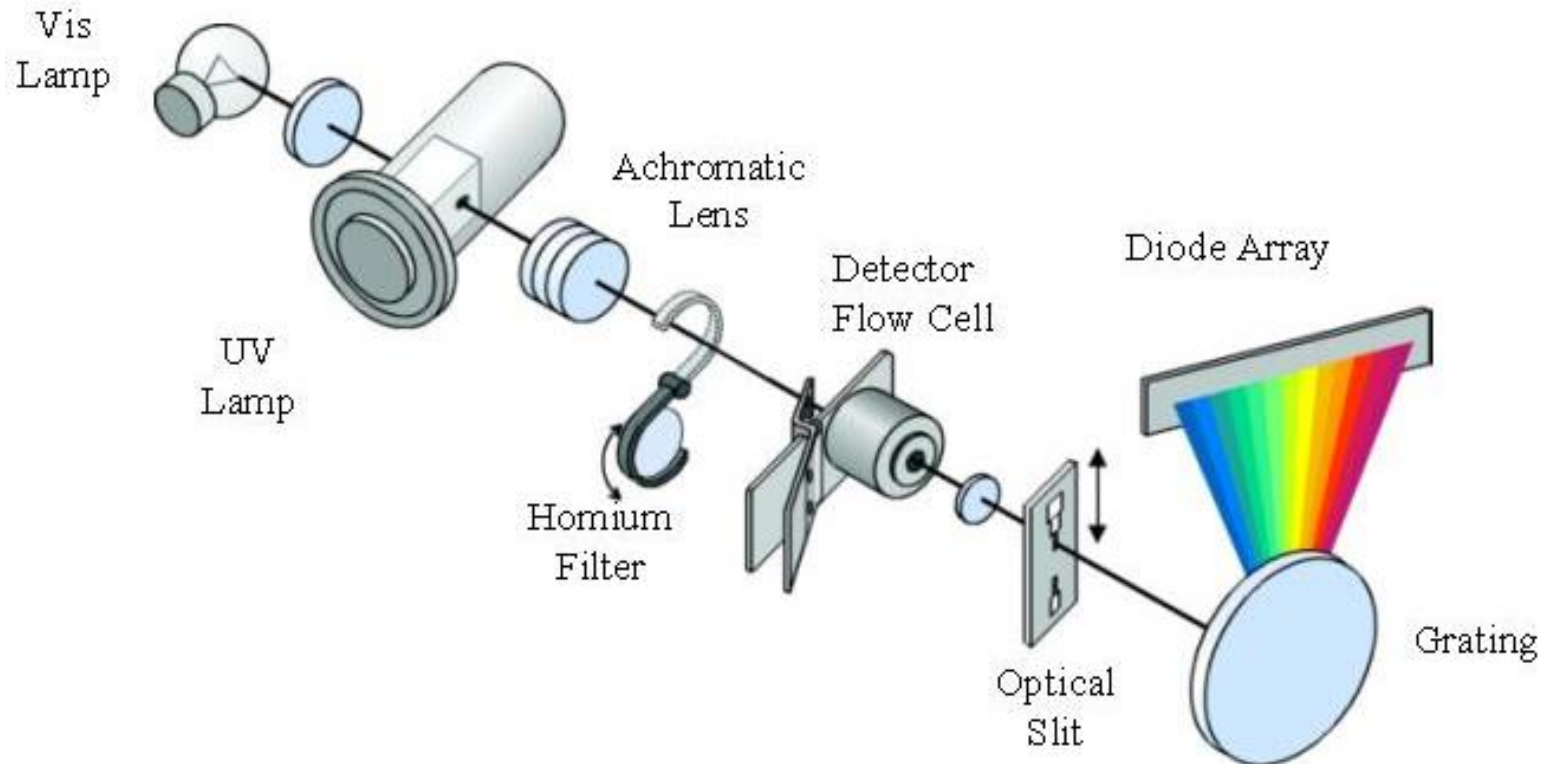
Very widespread application – not universal detection

Very sensitive X less selective

UV - characteristic spectra for certain groups

VIS - characteristic absorption maxima

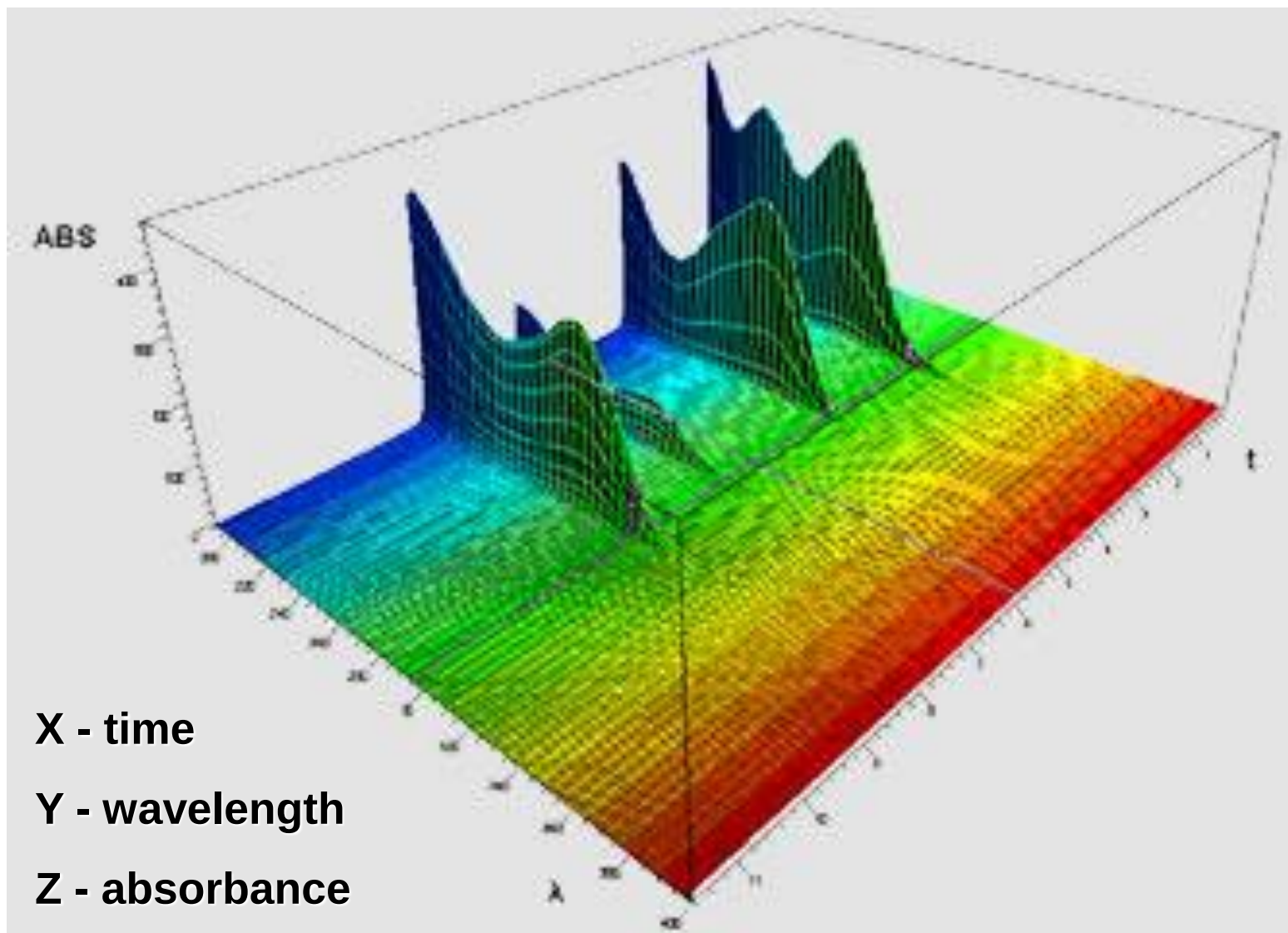
(Photo)Diode Array Detector - (P)DAD



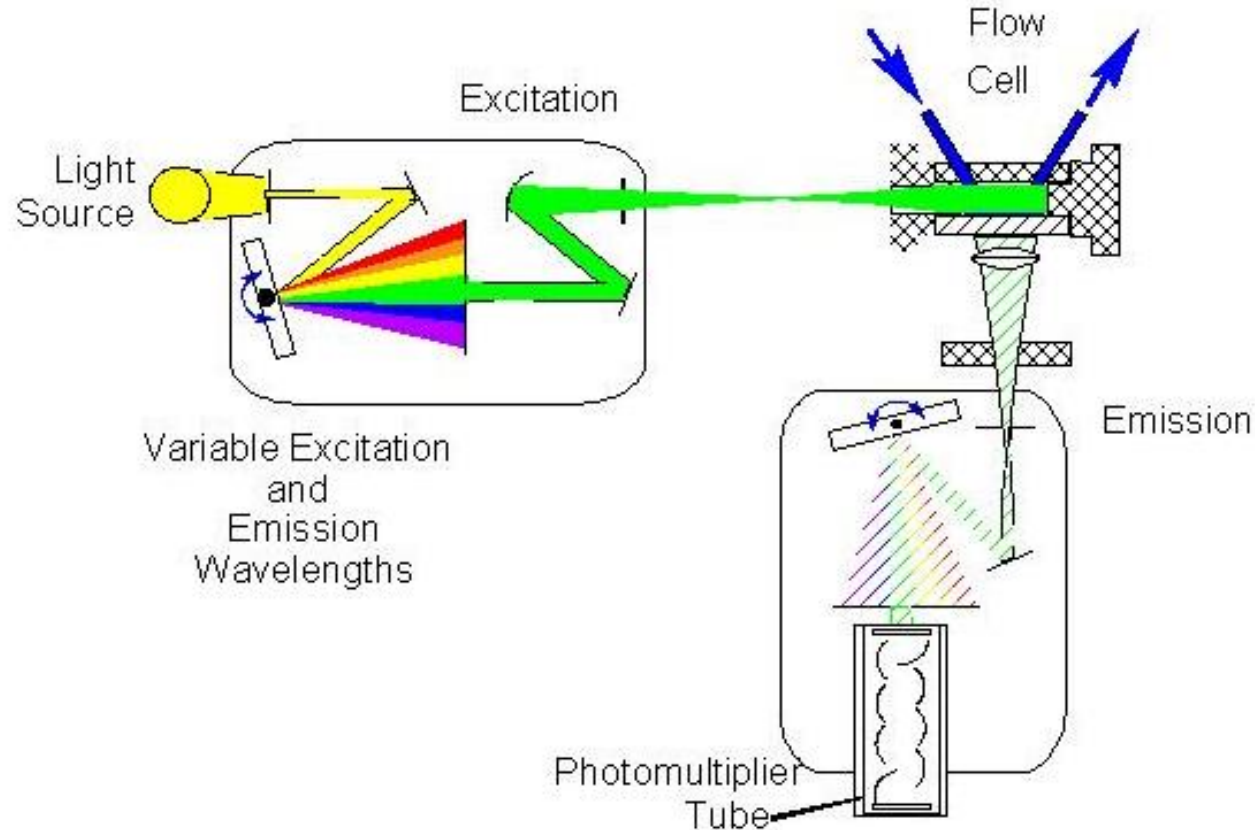
Spectral measurement - fully on-line $\Rightarrow$ 3D record

In practice - parallel record for selected λ

Three-dimensional record from DAD: 3D-Plot



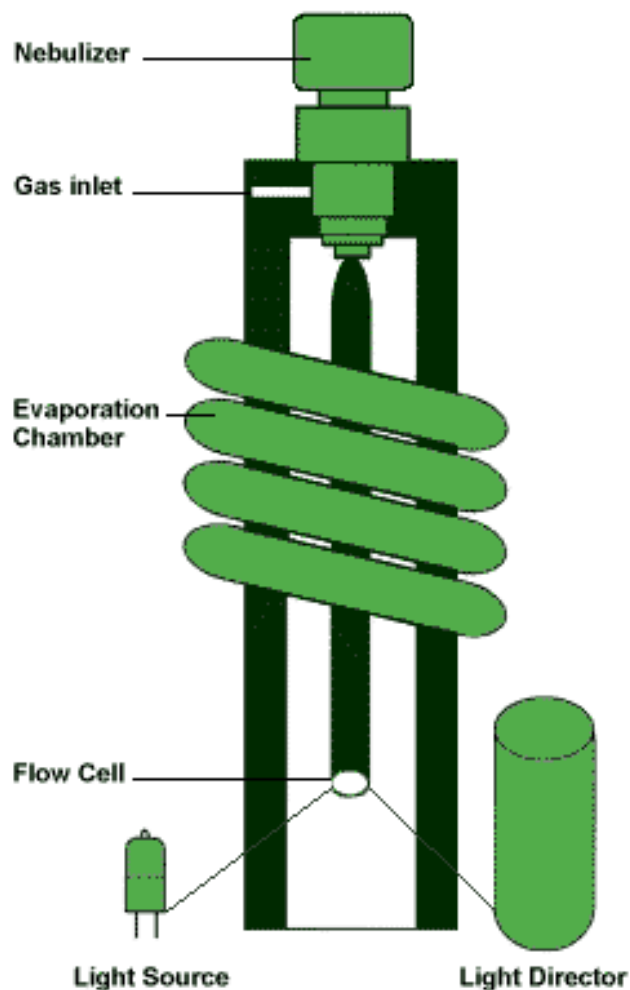
Fluorescence detector (FLD)- *alter. fluorimeter*



Very sensitive and selective

Characteristic combination of excitation and emission λ

Evaporative Light Scattering Detector (ELSD)

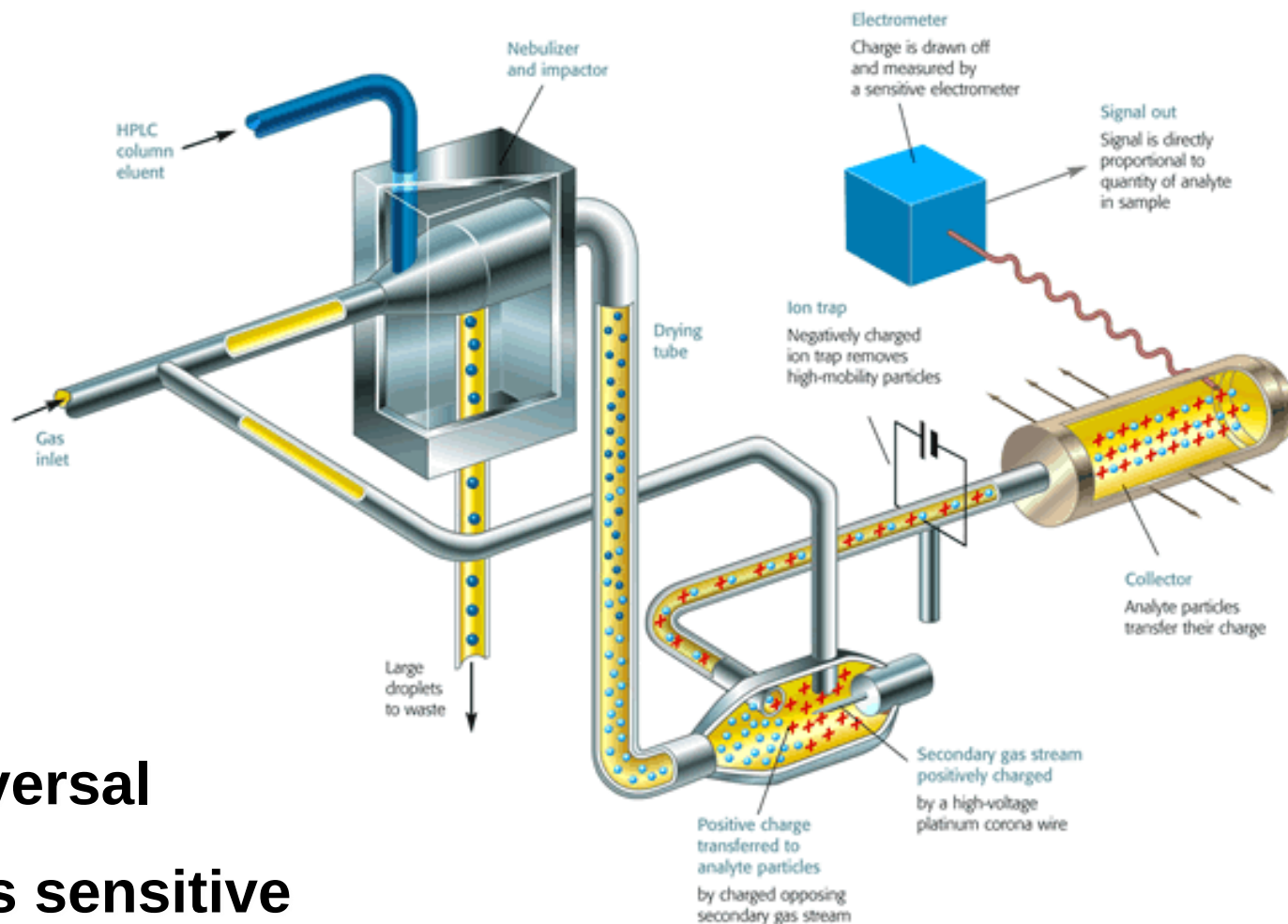


Universal

Less sensitive

**Limited sensitivity
for low M_w (< 100)**

Corona Charged Aerosol Detector (Corona CAD)

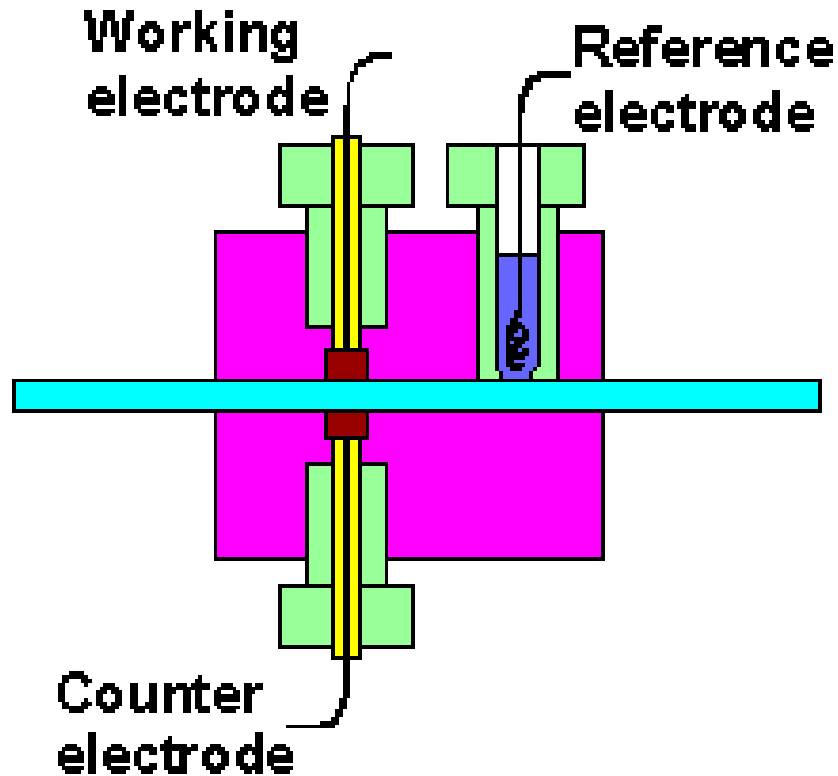


Universal

Less sensitive



Electrochemical detector



Selective

Sensitive

**Suitable for Red-Ox
active compounds**