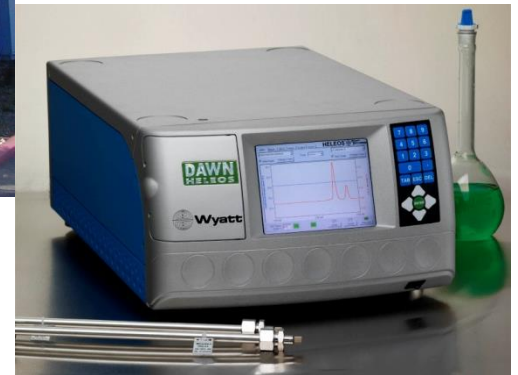
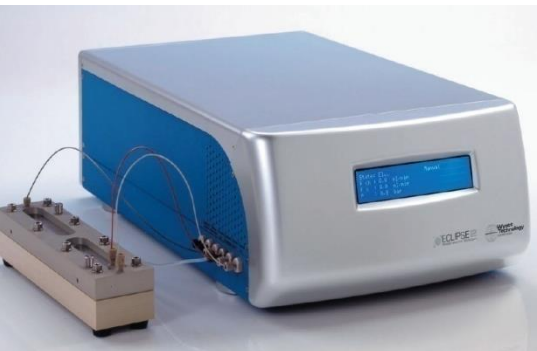
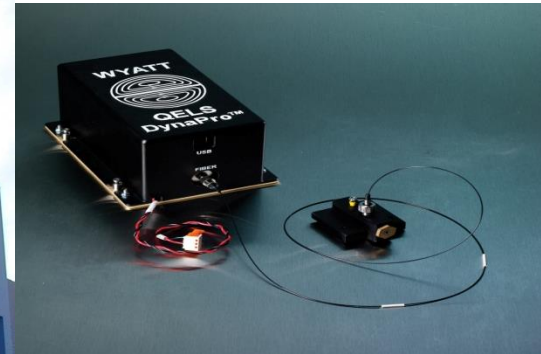
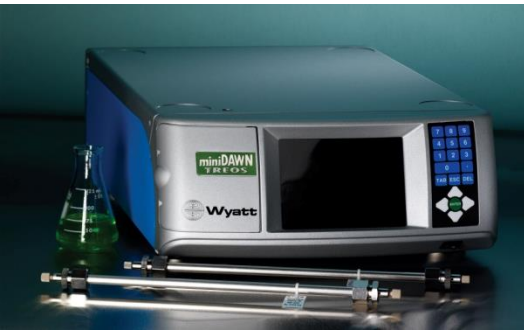
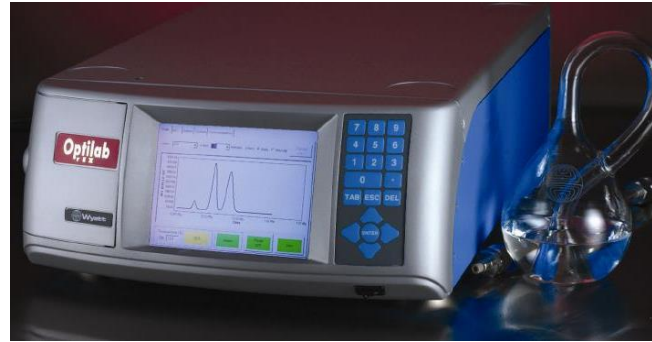
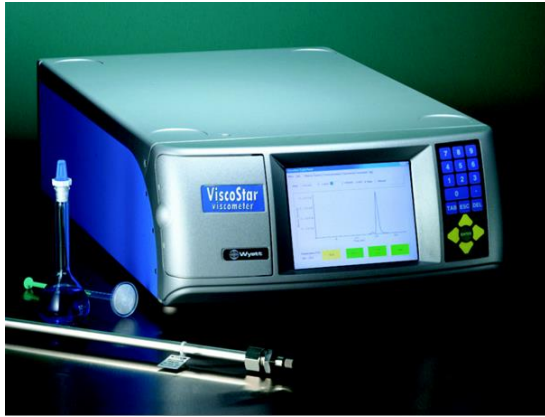


# Instruments with ever expanding applications



**WYATT**  
TECHNOLOGY

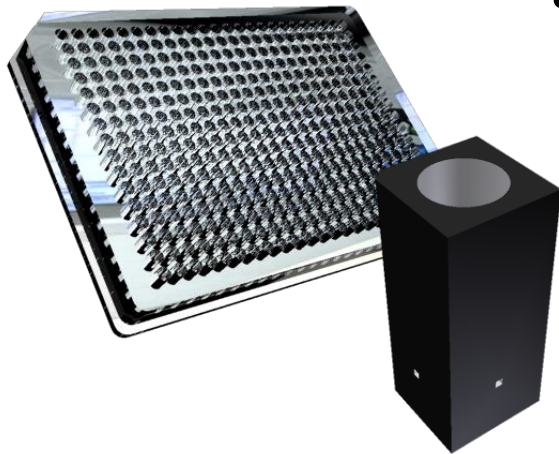
# Two Types of Light Scattering

- ***Static Light Scattering***



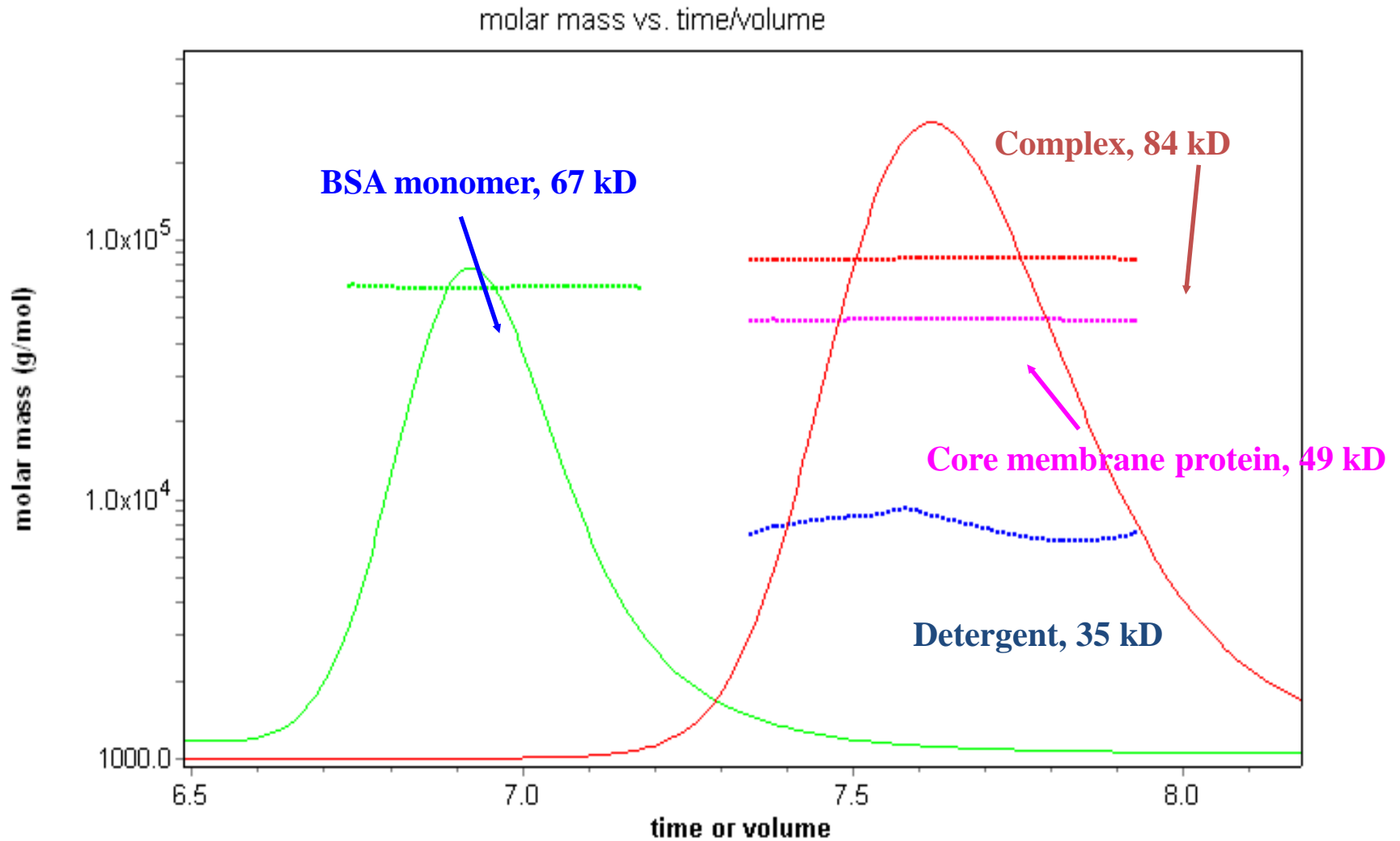
- a.k.a. Classical LS, Total Intensity LS, Multiangle LS
- Measures total intensity of scattered light
- Determines molecular weight, RMS radius ( $R_g$ ) and second virial coefficient  $A_2$  ( $B_{22}$ ) based on first principle

- ***Dynamic Light Scattering***



- a.k.a. QELS, PCS
- Measures time dependence of LS intensity change
- Determines translational diffusion coefficient directly, from which the hydrodynamic radius ( $R_h$ ) can be determined

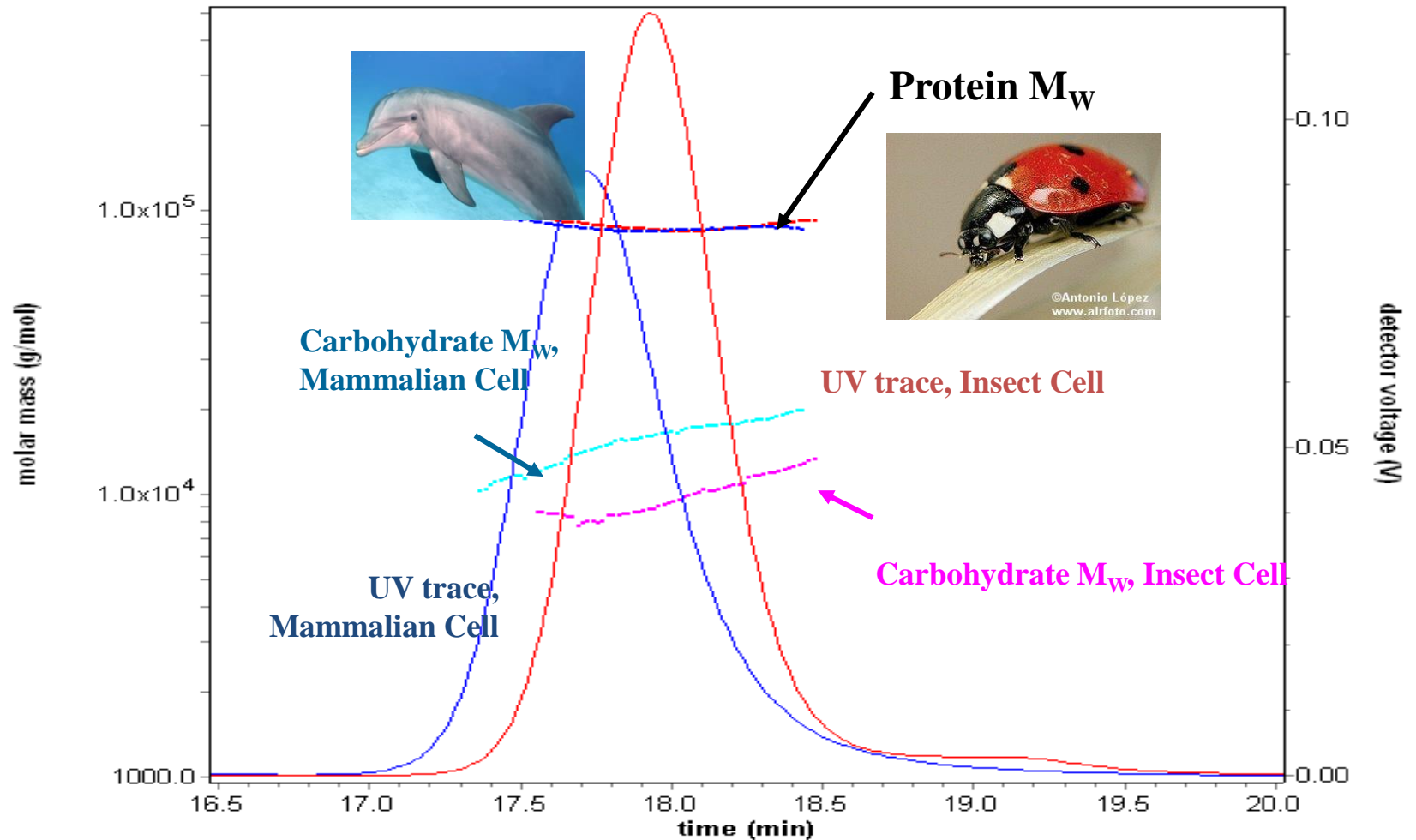
# Membrane Protein Z is a Monomer



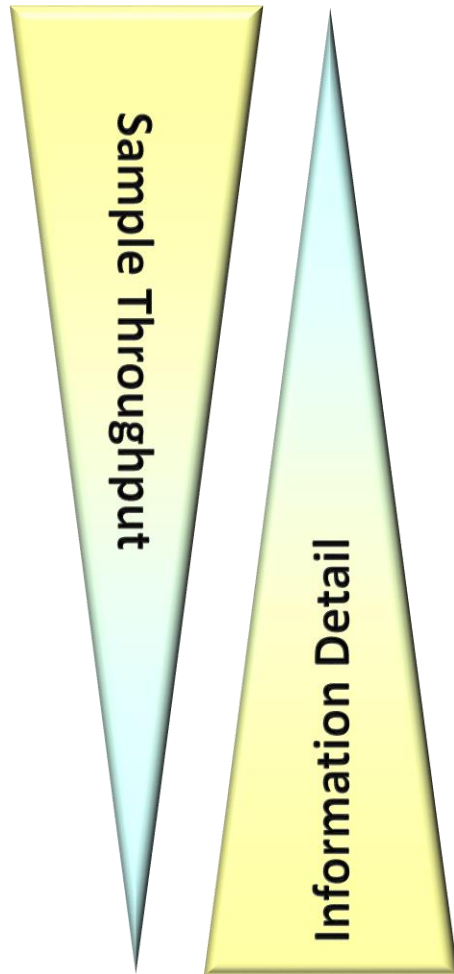
# Same Protein - Different Degrees of Glycosylation

ASTRA V analysis reveals the same protein MW but different carbohydrate contents of Protein X expressed from two different cell lines.

Insect & Mammalian



# Which Instrument?



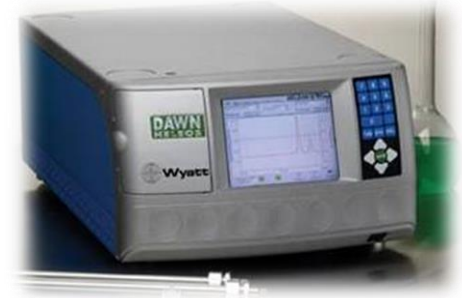
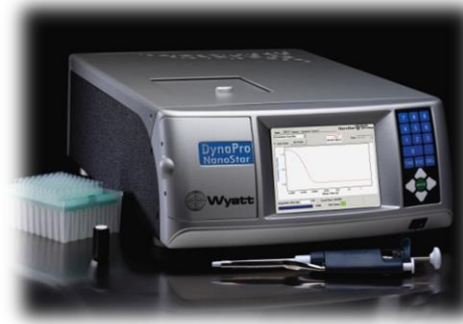
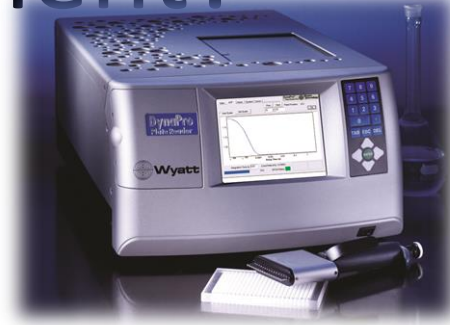
DynaPro  
Plate Reader



DynaPro  
NanoStar



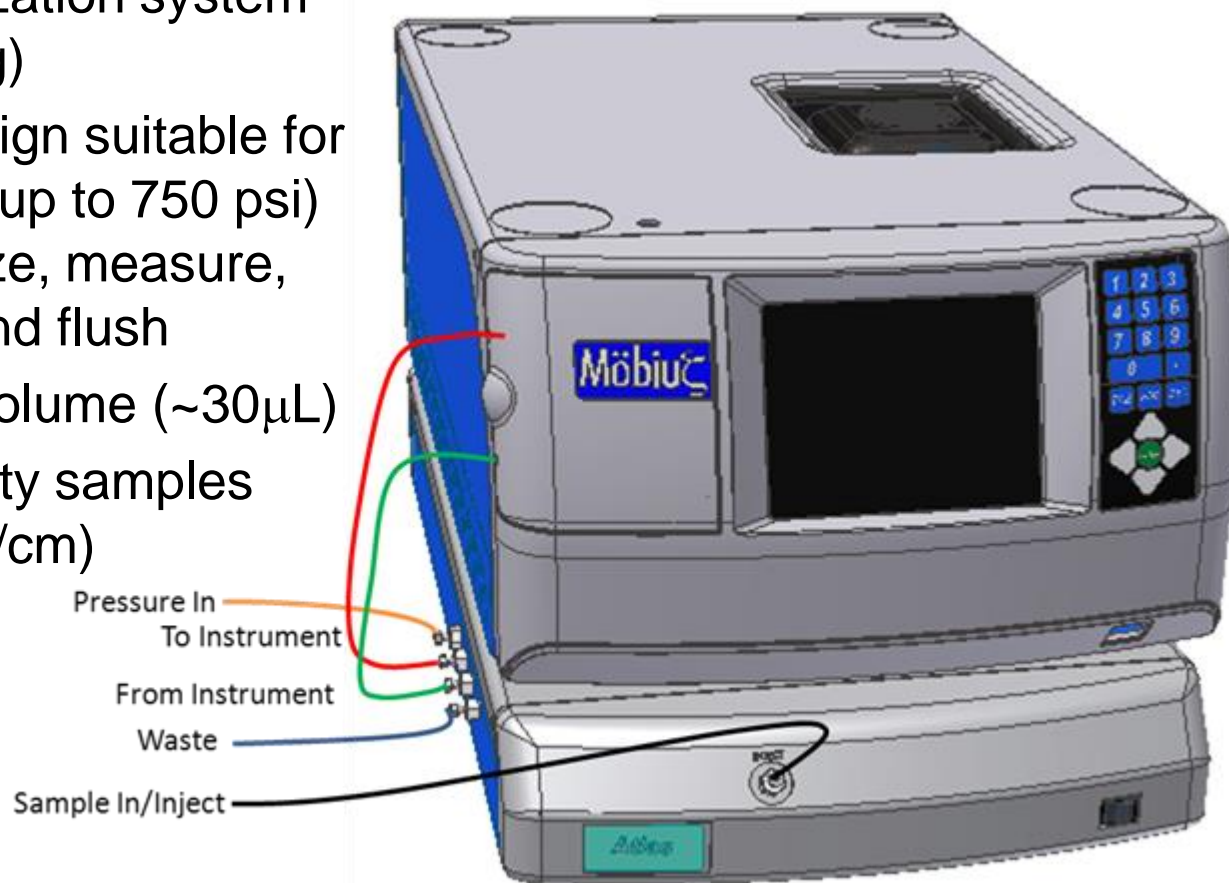
DLS + MALS  
with Separation  
Technique (SEC/FFF)





# *Möbius/Atlas for working with high-salt samples*

- Atlas<sup>®</sup> pressurization system (patent-pending)
- Unique cell design suitable for pressurization (up to 750 psi)
- Inject, pressurize, measure, depressurize and flush
- Minimal extra volume (~30 $\mu$ L)
- High-conductivity samples ( $\rightarrow$  60 mS/cm)



# Mobius Atlas (automated loading)

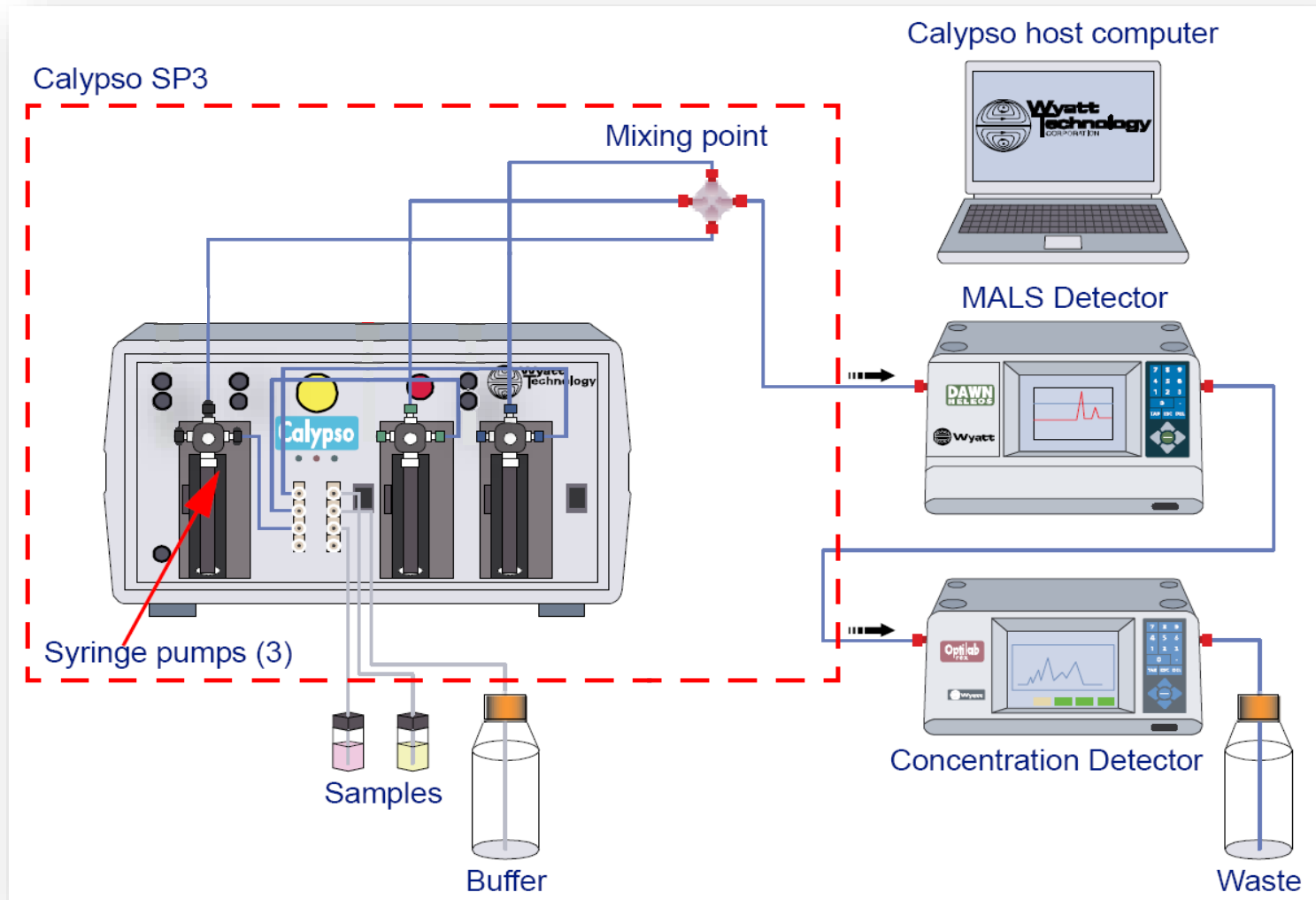


# Measuring Macromolecular Interactions using Multi-Angle Light Scattering with a Calypso System

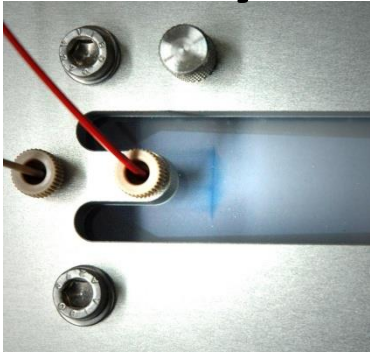




# CG-MALS set-up: Calypso + DAWN + Concentration



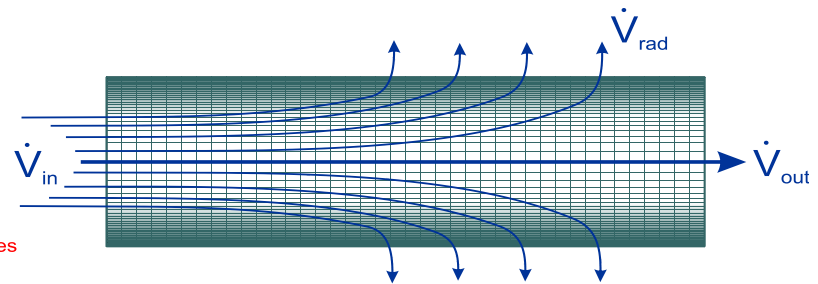
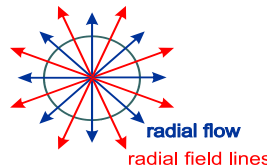
# Asymmetrical Flow FFF (AF4)



Only one pump is needed (Agilent or Shimadzu)

The injection flow is generated by a split off the main flow for AF4; part of inlet flow for Dualtec.

Benefit: less hardware maintenance with only one pump for all flow





**WYATT**  
TECHNOLOGY

**Come over and Talk – I  
have a lot of pens to give  
away!**