

NEW !!! FluorLite CoAguLab

Objective measurement technique for measuring kinetics of coagulating enzymes (IMCU's)

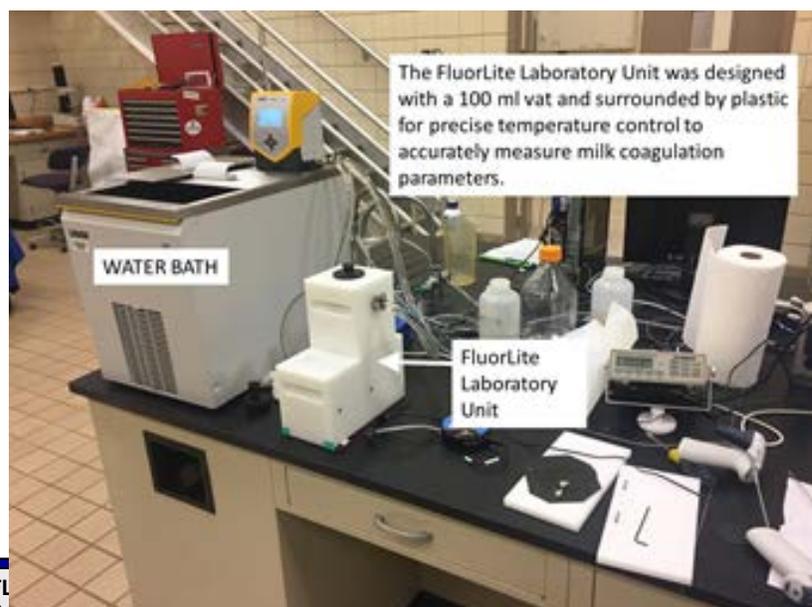
- ❖ **Measures enzyme kinetics**
- ❖ **Test your new:**
 - **Starters**
 - **Rennet**
 - **Additives**
 - **Processing conditions**
- ❖ **Monitors culture growth**
- ❖ **Measures International Milk Clotting Units (IMCU's)**

The FluorLite CoAguLab monitoring system provides a consistent and repeatable optically based method for measurement of the kinetics of milk coagulating enzymes. The FluorLite CoAguLab instrument may be equipped with up to four vats for multiple paired testing. It was specifically designed to provide excellent temperature control for accurate determination of the milk-clotting activity of rennet, in compliance with the IDF and ISO standards. The system monitors temperature, light backscatter at 880 nm, and tryptophan fluorescence. Tryptophan fluorescence has been shown to drop significantly in the gel firming region. Determination of the enzymatic reaction rate of the coagulating

milk, with simultaneous monitoring temperature, gives this technology the ability for rennet assessment of new starters, rennet and cheese making additives. It also assists with accurate testing of innovative processing conditions for dairy products development or for cheese making efficiency improvement.

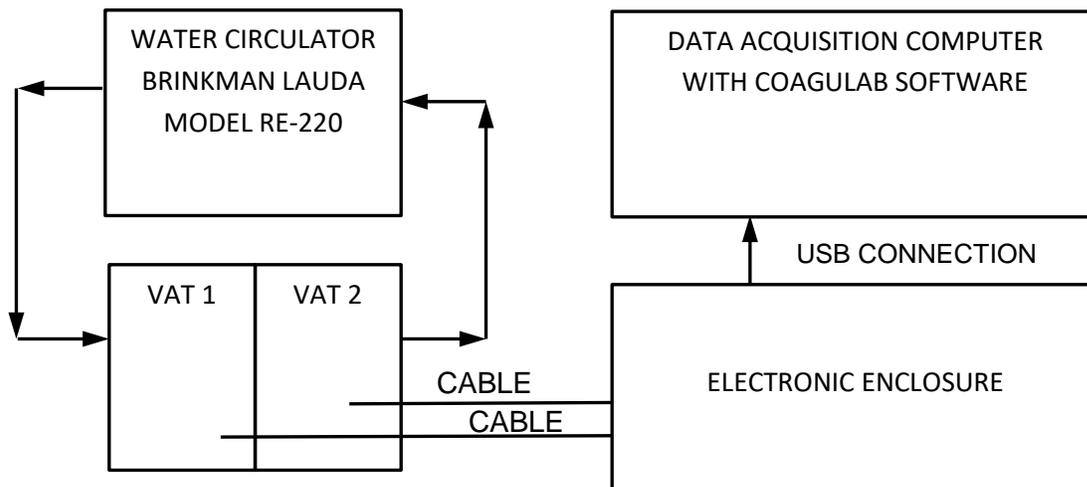
Time based parameters are generated from the light backscatter profile obtained during testing.

The optical specifications are the same as the FluorLite CoAguLite.



FluorLite CoAguLab Technical Specifications

- ❖ Vat fabrication material: 316 SS and Ertalyte
- ❖ Vat capacity: 100 mL
- ❖ Light Wavelength: 880 nm; 280 nm UV excitation/350 nm fluorescent detection
- ❖ Recommended water bath: Brinkmann Lauda circular RE220 or equivalent: flow rate \geq 20L min⁻¹; outflow pressure, 0.4 bar; capacity, 12-20 L; temperature control accuracy, $\pm 0.01^\circ\text{C}$.
- ❖ Power Supply: 120/240 VAC selectable
- ❖ Computer: Microsoft Windows based



The FluorLite CoAguLab vats are configured to be connected in series. The above sketch shows two vats connected. The water flow from the water bath is sufficient (10 or more volume exchanges per minute) that multiple vats (up to 4) can be connected in series without an appreciable temperature drop ($<0.1^\circ\text{C}$). Cables connect each vat to the Electronic Enclosure where the signal is converted to a digital format. A laptop or desktop computer connects to the Electronic Enclosure using a USB cable. FluorLite CoAguLab data acquisition software is included with the package. A cap placed over the vat eliminates surface evaporation.

