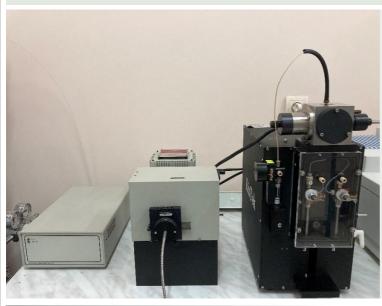
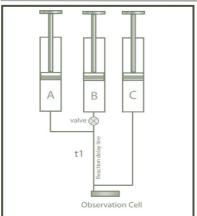
## Stopped-Flow Spectrometer KinTek SF-E100



A double mixing stopped-flow system capable of mixing reactants in sequential fashion to perform Double Mixing Experiments, PC operated via KinTek StopFlow software (manufacturer Kintek Corporation, 2004).

- Utilizes UV-Vis detection methods
- Wavelength range: 190-900 nm
- Wavelength precision: ±0.1 nm
- Detector: DIODE
- Pathlength: 1 cm



2.5 Rate 1 = 22 s<sup>-1</sup>

0.5 Delay Time (t., ms)

0.90

0.91

0.02

0.03

Reaction Time (t2, s)

Dr. Lilia Anghel Office: 220 Email: lilia.anghel@ichem.md

Institute of Chemistry, Academiei str. 3, Chisinau, Republic of Moldova Web: www.ichem.md Stopped-flow is a lab technique for studying chemical kinetics of fast reactions in solutions.

## Generalities:

- This apparatus uses the drive motor to rapidly fire two solutions, contained in separate drive syringes (A and B), together into a mixing device.
- The solutions then flow into the observation cell displacing the previous contents with freshly mixed reactants.
- A stop syringe (C) is used to limit the volume of solution expended with each experiment and also serves to abruptly stop the flow.
- The flow of solution into the stop syringe causes the plunger to move back and trigger data collection.
- The fresh reactants in the observation cell are illuminated by a light source and the change, as a function of time, in many optical properties (Absorbance, Fluorescence, etc.) can be measured.