

iPDA

Floc Analyzing Equipment

◆ Characteristics

iPDA is characterized to analyze the flocs in the process of coagulation and flocculation. iPDA is a simple, but very sensitive monitor for flowing flocs, based on an optical technique. iPDA is a good tool for determining the optimal dosing amount of coagulant and forming the good flocs in a laboratory and pilot scales.



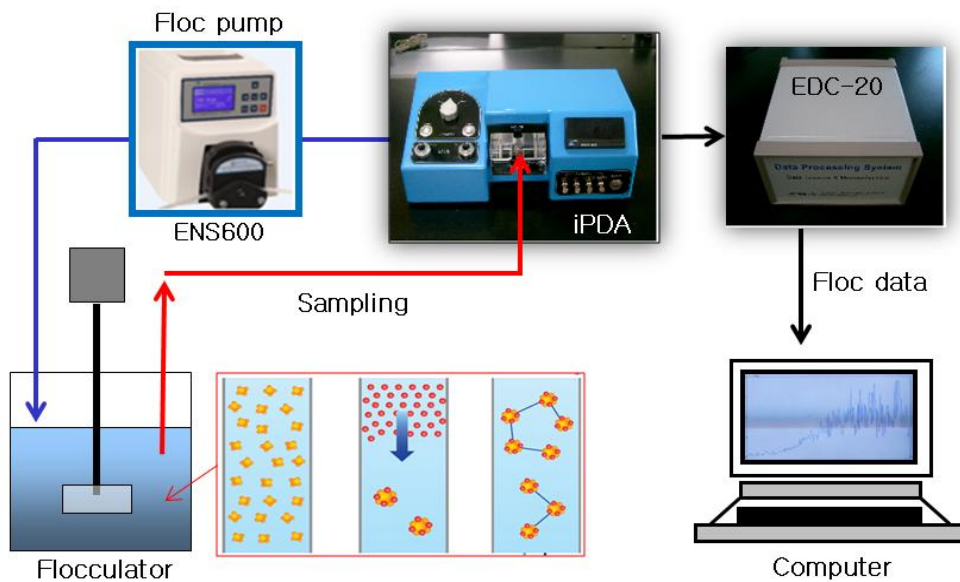
◆ Advantages

- Easy operating and maintenance
- A very wide range of flocs concentrations can be directly monitored
- Floc measuring in the real time

◆ Application Scopes

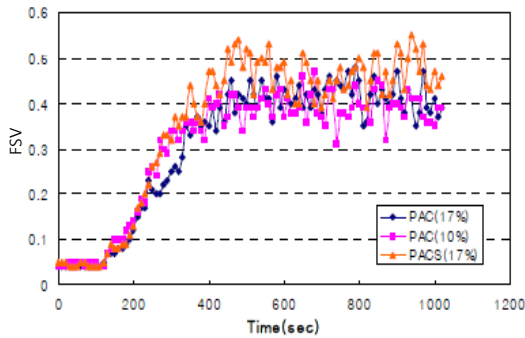
- Selection of optimum flocculant dosage
- Control of dispersion and process
- Assessment of the strength of flocs
- Determining the optimal coagulant dose

◆ Set up in Laboratory

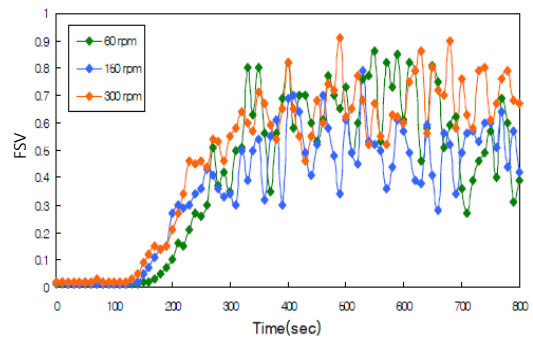


◆ Experimental Scopes

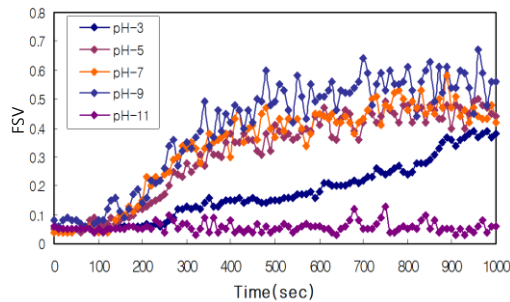
- Measuring of floc size and floc rate
- Selection of best coagulant
- Gaining of optimal mixing intensity
- Break-up of floc and reflocculation



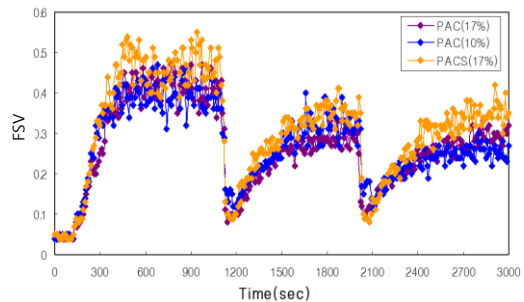
a) Optimal coagulant determining



b) Gaining of optimal mixing intensity

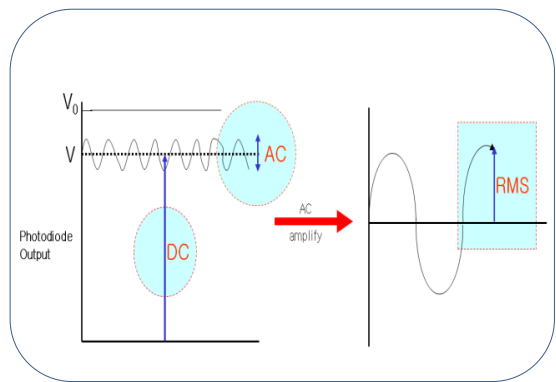
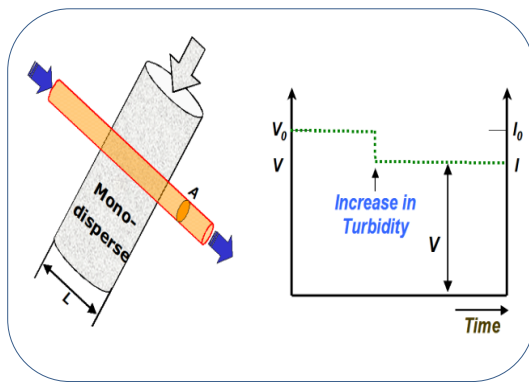


c) Relation of pH with floc growth



d) Break-up of floc and reflocculation

◆ Measuring Principle



- Converting the intensity of the light through raw water into electrical signal
- Signal of raw water is V , Signal of pure water is V_0
- RMS signal is relationally changed by flocs
- Measuring floc size and floc growth rate by RMS