

Specifications

Measurable particle size	0.1~1000um
Maximum particle density	~60%v/v (~95% for emulsion)
Measurement method	Optical analysis (transmission & backscattering)
Measurement sample amount	24ml (Option cell : 2.8ml)
Temperature control range	4 ~ 80℃ (required electric heater or chiller)
Particle size analysis (option)	(1) Kinetic particle size analysis (2) Optical particle size analysis (3) Particle size distribution analysis
Max. scan interval resolution	5um
Size / weight	502 x 390 x 280mm (with 2 scan towers)
Power supply	100~240V 50-60Hz 300VA

Applications



Daily commodity



Food product



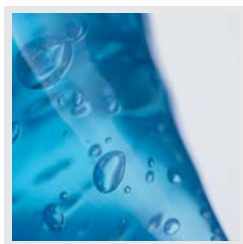
Slurry



Inkjet Ink



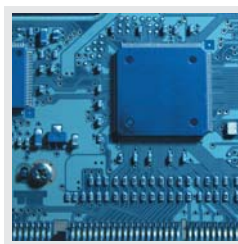
Paint, Ink



Polymer,
Chemical products



Oil-related products



Electronic materials



Cosmetics, Form



Medicinal chemicals

Stability Tester ST-1

The measuring instrument for stability and ageing analysis

EKO

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Beyond Accuracy.

Stability Tester ST-1

The measuring instrument for stability and ageing analysis

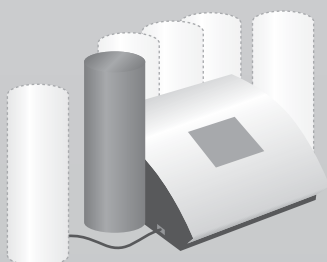
Quick stability evaluation of high viscosity solvent

- Measurement of the suspensions and emulsions without thinning.
- Non-contact measurement of particle/droplet migration, Evaluate creaming, sedimentation, agglomeration and coalescence.
- No acceleration test using heating or centrifugal force. Quick evaluation in actual condition.



Additional scan tower

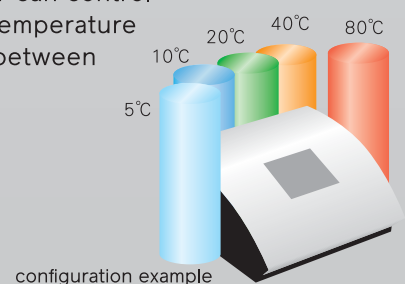
Scan tower can be added up to 6 units for better evaluation efficiency.



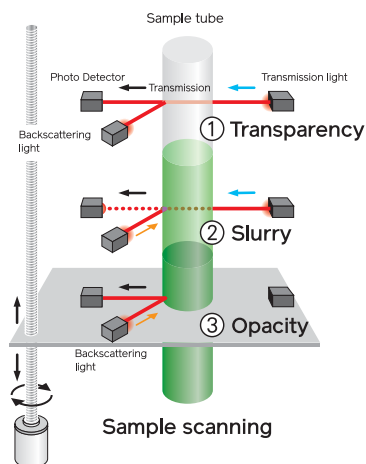
Temperature control

ST-1 can evaluate the stability at real storing condition like warehouse or refrigerator.

Each scan tower can control the evaluation temperature independently between 4 and 80°C.



Measurement Principle

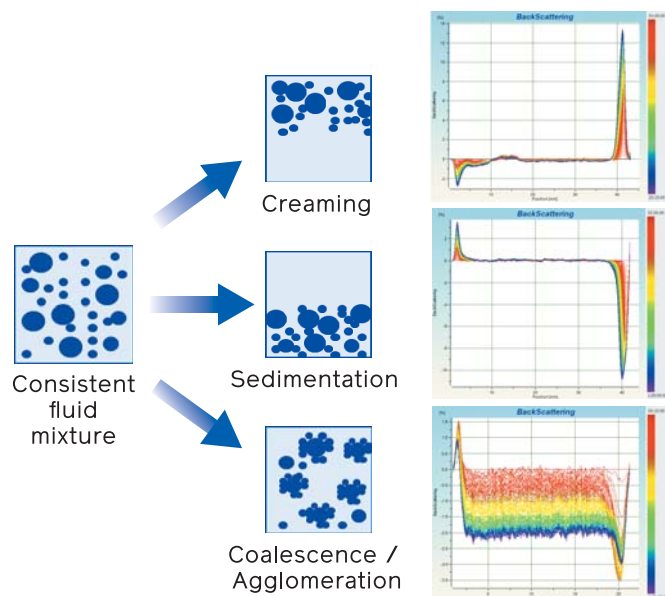


The scanning plate consists two LED and a photo detector.

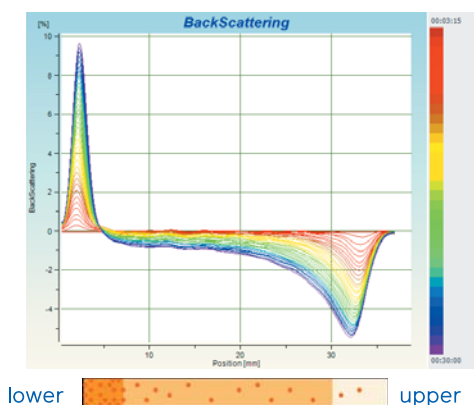
The photo detector detects LED light transmission through the sample and backscattering from the sample. And the scanning plate moves from top to bottom to scan the sample to measure the transmission and backscattering on each position.

The stability is evaluated by the data analysis of the periodic scanning.

Analysis of particle migration



Data analysis



X axis is the height of scanning. Y axis is the backscattering strength. The distribution of backscattering over time is shown in different color. The backscattering strength is changed by particle density. The graph is showing the strength at upper position is reducing and lower position is increasing with time. It means the particle of the fluid mixture in upper position is migrating to lower position.

By showing graph of the variation of average in peak and middle area, it makes quantitative analysis of sedimentation, creaming and agglomeration speed.