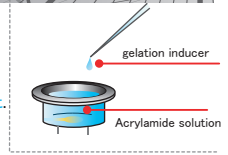


Viscoelasticity monitoring of gelation process

Methods

1. Add 500 μ l of measuring solution and start measuring.
2. Induction of gelation.
 - ※ Sample volume of 10ul is possible in viscoelasticity measurement.



Example

Gelation of acrylamide

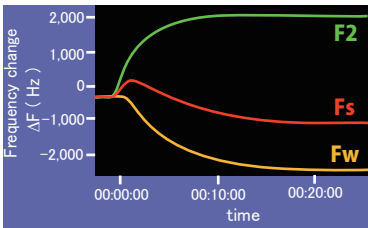


Acrylamide solution

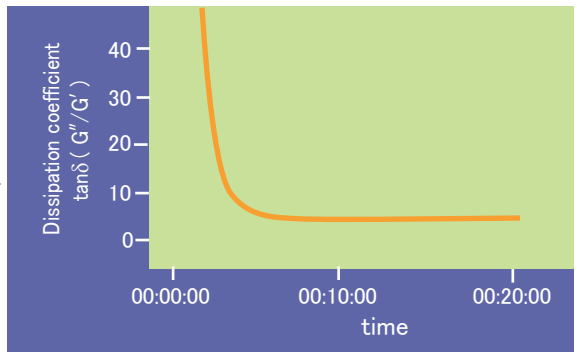


Acrylamide gel

*TEMED
(N,N,N',N'-Tetramethylethylenediamine)



Increase of F2 means viscoelastical change.



From the data of frequency change, G' and G'' is evaluated.
The $\tan \delta$ (G''/G') means hardness of bulk materials.

Decrease of $\tan \delta$ means hardness of gel is increased. If gelation do not occur, G' is almost zero, it results in $\tan \delta$ is ∞ .

Application

1. Estimation of gelation time
2. Analysis of gelation process and viscoelastic characteristics of colloid, polymer and protein solution.