**Measuring condition of theoretical number of plates
and Method for measuring theoretical number of plates**

Column size: 300 mm L × ID 20 and 600 mm L × ID 20

Column type	JAIGEL-ODS	JAIGEL-GS	JAIGEL-H	JAIGEL-H	JAIGEL-W
Solvent type	Water 15% E methanol 85%	Water	Toluene	Chloroform THF	Various types
Flow rate (ml/min)	5	5	3.5	3.5	3.5
Sample	Toluene 1% + naphthalene	Ethylene-glycol 1%	Anisole 1%	Benzene 10%	Ethylene-glycol 1%
Injection volume ($f\hat{E}$)	15	200	100	20	200

Column size: 300 mm L × ID 8 and 600 mm L × ID 8

Column type	JAIGEL-ODS	JAIGEL-GS	JAIGEL-H	JAIGEL-H	JAIGEL-W
Solvent type	Water 15% E methanol 85%	Water	Toluene	Chloroform THF	Various types
Flow rate (ml/min)	1	1	1	1	1
Sample	Toluene 1% + naphthalene	Ethylene-glycol 1%	Anisole 1%	Benzene 10%	Ethylene-glycol 1%
Injection volume ($f\hat{E}$)	5	50	50	2	50

Method for measuring theoretical number of plates

Inject the sample to measure the peak retention time (Tr) and the half value width (W). The chromatogram and the equation are as follows:

Advice

Make a second measurement 5 minutes after the first for ready use of the data if a failure is found.
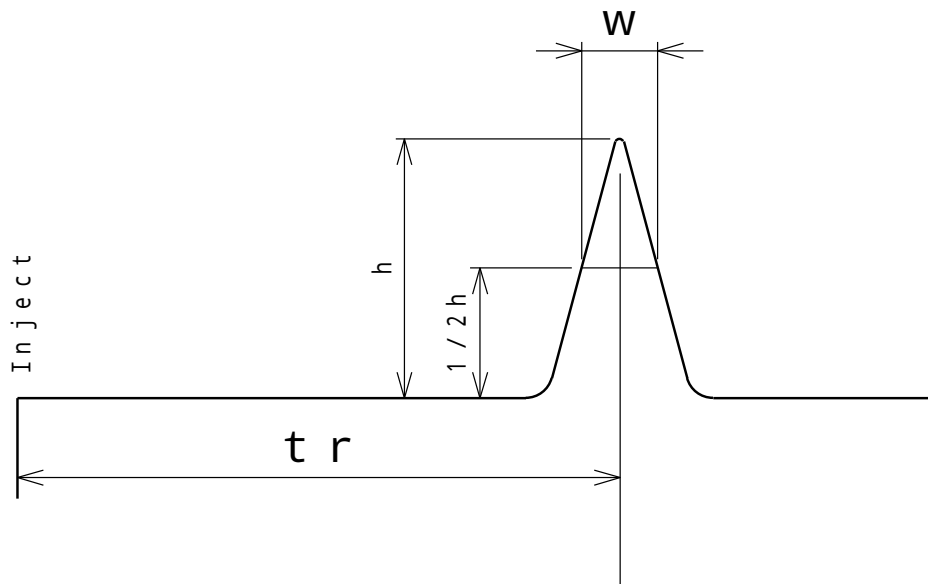
Equation for calculating the theoretical number of plates:

Theoretical number of plates N = 5.54 × (tr/w)^2

1) When two columns are used in series, divide the above value by 2.
2) Normally perform measurement without connecting the pre-column.