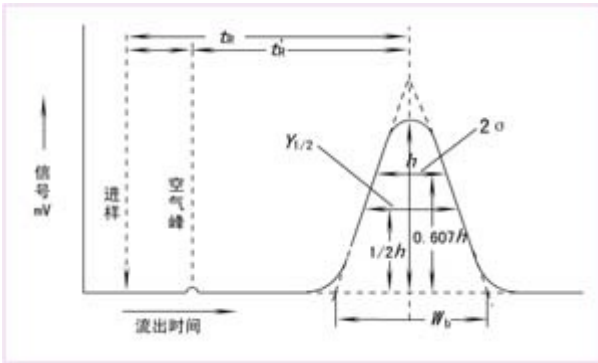


1. (动画) Baseline



The detected signal when no sample entering into detector

2.Retention value (1) Retention time Retention time (t_R) : time from injection to maximum of the peak. Dead time (t_M) : retention time of gas not retained by stationary phase.

Adjusted retention time (t_R') : $t_R' = t_R - t_M$

(2) Retention volume Retention volume (V_R) : $V_R = t_R \times F_0$ (F_0 is flow rate of carrier gas at the chromatographic outlet, unit: mL / min.) Dead volume (V_M) : $V_M = t_M \times F_0$ Adjusted volume (V_R') : $V_R' = V_R - V_M$ **3.**

relative retention value r_{21} The ratio of adjusted retention value between component 2 and component 1: $r_{21} = t_{R2} / t_{R1} = V_{R2} / V_{R1}$ The relative retention value is only relevant to column temperature and property of stationary phase and irrelevant to other chromatographic operating conditions. It indicates that stationary phase has selectivity for these two components.

4.Region width There are three kinds methods to weigh width of chromatograph peak: (1) Standard deviation (s) : the half peak width at 0.607 peak height. (2) Half peak width ($Y_{1/2}$) : peak width at half peak height, $Y_{1/2} = 2.354 s$ (3) Peak base width (W_b) : peak width at baseline, $W_b = 4 s$ Outline of this page: Master chromatographic retention value, meaning and expression method of region width, relative relationship of all parameters , and site of all parameters in chromatographic elution curve. Thinking subject of this page: What is the difference of retention time and adjusted retention? Thinking subject of next page: What is the core of plate theory?