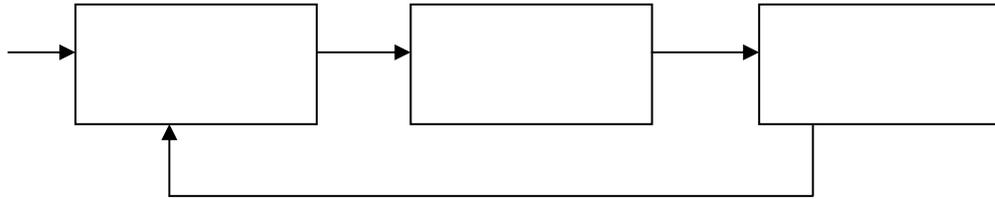


Chap 1.



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:

: , , , , ,

(contacting pattern), (performance equation) : (kinetics),

(homogeneous reaction) :
(heterogeneous reaction) :

- -

: , ,
: , , ,

(1)

$$r_i = \frac{1}{V} \frac{dN_i}{dt} = (\quad i \quad) / (\quad) / (\quad)$$

(2) -

$$r_i' = \frac{1}{W} \frac{dN_i}{dt} = (\quad i \quad) / (\quad) / (\quad)$$

(3) - , -

$$r_i'' = \frac{1}{S} \frac{dN_i}{dt} = (\quad i \quad) / (\quad) / (\quad)$$

(4) -

$$r_i''' = \frac{1}{V_s} \frac{dN_i}{dt} = (\quad i \quad) / (\quad) / (\quad)$$

(5) 가 ,

$$r_i'''' = \frac{1}{V_s} \frac{dN_i}{dt} = (\quad i \quad) / (\quad) / (\quad)$$

():

$$r_i = r_i''''$$

:

$$\frac{dN_i}{dt}$$

가 .

$$\frac{dN_i}{dt} = V \cdot r_i = W \cdot r_i' = S \cdot r_i'' = V_s \cdot r_i''' = V_r \cdot r_i''''$$

() ()

