$$\frac{dH}{dt} = \frac{\beta_H}{N}(N-C-H)H - (\delta_H + \alpha_H)H \quad (1)$$

$$\frac{dC}{dt} = \frac{\beta_C}{N}(N-C-H)C - (\delta_C + \alpha_C)C \quad (2)$$

(1.) $\frac{\beta_H}{N}(N-C-H)H - (\delta_H+\alpha_H)H = 0$

$H=0 \vee \frac{\beta_H}{N}(N-C-H) - (\delta_H+\alpha_H) = 0$

$\frac{\beta_H}{N}(N-C-H) = (\delta_H+\alpha_H) \quad / \cdot \frac{N}{\beta_H}$

$N-C-H = \frac{N(\delta_H+\alpha_H)}{\beta_H}$

$-H = \frac{N(\delta_H+\alpha_H)}{\beta_H} - N + C$

$H = -\frac{N(\delta_H+\alpha_H)}{\beta_H} + N - C$

(2.) $\frac{\beta_C}{N}(N-C-H)C - (\delta_C+\alpha_C)C = 0$

$C=0 \quad \vee \quad \frac{\beta_C}{N}(N-C-H) - (\delta_C+\alpha_C) = 0$

$\frac{\beta_C}{N}(N-C-H) = (\delta_C+\alpha_C) \quad / \cdot \frac{N}{\beta_C}$

$N-C-H = \frac{N(\delta_C+\alpha_C)}{\beta_C}$

$-C = \frac{N(\delta_C+\alpha_C)}{\beta_C} - N + H$

$C = -\frac{N(\delta_C+\alpha_C)}{\beta_C} + N - H$

punkty krytyczne

$(0,0)$

$\left(N - \frac{N(\delta_C+\alpha_C)}{\beta_C}, 0\right)$

$\left(0, N - \frac{N(\delta_H+\alpha_H)}{\beta_H}\right)$