Differential Equations

$$\frac{d\,[\mathrm{x0}]}{dt} = -\left([\mathrm{x0}] - \mathrm{pow}\left([\mathrm{x4}]\,,\,\mathrm{a}\right)\cdot 0.00719\right)$$

$$\begin{aligned}\frac{d\,[\mathrm{x1}]}{dt} = {} & [\mathrm{x0}] \\ & - \mathrm{pow}\left([\mathrm{x4}]\,,\,\mathrm{a}\right)\cdot 0.00719\end{aligned}$$

$$\frac{d\,[\mathrm{x2}]}{dt} = -\left(\mathrm{pow}\left([\mathrm{x5}]\,,\,\mathrm{h}\right)\cdot 0.00719 - \mathrm{pow}\left([\mathrm{x2}]\,,\,\mathrm{g}\right)\cdot 0.0048535\right)$$

$$\begin{aligned}\frac{d\,[\mathrm{x3}]}{dt} = {} & \mathrm{pow}\left([\mathrm{x4}]\,,\,0.5\right)\cdot 0.00719 \\ & - \mathrm{pow}\left([\mathrm{x5}]\,,\,\mathrm{d}\right)\cdot 0.00719\end{aligned}$$

$$\begin{aligned}\frac{d\,[\mathrm{x4}]}{dt} = {} & \mathrm{pow}\left([\mathrm{x5}]\,,\,\mathrm{e}\right)\cdot 0.00719 \\ & + \mathrm{pow}\left([\mathrm{x4}]\,,\,\mathrm{a}\right)\cdot 0.00719 \\ & + \mathrm{pow}\left([\mathrm{x5}]\,,\,\mathrm{d}\right)\cdot 0.00719 \\ & + [\mathrm{x6}] \\ & - [\mathrm{x7}] \\ & - [\mathrm{x0}] \\ & - \mathrm{pow}\left([\mathrm{x4}]\,,\,0.5\right)\cdot 0.00719 \\ & - \mathrm{pow}\left([\mathrm{x4}]\,,\,\mathrm{f}\right)\cdot 0.00719 \\ & - \mathrm{pow}\left([\mathrm{x4}]\,,\,\mathrm{i}\right)\cdot 0.00719\end{aligned}$$

$$\begin{aligned}\frac{d\,[\mathrm{x5}]}{dt} = {} & \mathrm{pow}\left([\mathrm{x4}]\,,\,\mathrm{f}\right)\cdot 0.00719 \\ & + \mathrm{pow}\left([\mathrm{x2}]\,,\,\mathrm{b}\right)\cdot 0.009707 \\ & + \mathrm{pow}\left([\mathrm{x5}]\,,\,\mathrm{d}\right)\cdot 0.00719 \\ & + [\mathrm{x7}] \\ & + \mathrm{pow}\left([\mathrm{x2}]\,,\,\mathrm{g}\right)\cdot 0.0048535 \\ & - [\mathrm{x6}] \\ & - \mathrm{pow}\left([\mathrm{x5}]\,,\,\mathrm{c}\right)\cdot 0.00719 \\ & - \mathrm{pow}\left([\mathrm{x4}]\,,\,0.5\right)\cdot 0.00719 \\ & - \mathrm{pow}\left([\mathrm{x5}]\,,\,\mathrm{e}\right)\cdot 0.00719 \\ & - \mathrm{pow}\left([\mathrm{x5}]\,,\,\mathrm{h}\right)\cdot 0.00719\end{aligned}$$

$$\begin{aligned}\frac{d\,[\mathrm{x6}]}{dt} = {} & \mathrm{pow}\left([\mathrm{x5}]\,,\,\mathrm{h}\right)\cdot 0.00719 \\ & + [\mathrm{x6}] \\ & - \mathrm{pow}\left([\mathrm{x2}]\,,\,\mathrm{g}\right)\cdot 0.0048535 \\ & - \mathrm{pow}\left([\mathrm{x4}]\,,\,\mathrm{f}\right)\cdot 0.00719\end{aligned}$$

$$\begin{aligned}\frac{d\,[\mathrm{x7}]}{dt} = {} & \mathrm{pow}\left([\mathrm{x4}]\,,\,\mathrm{i}\right)\cdot 0.00719 \\ & + [\mathrm{x7}] \\ & - \mathrm{pow}\left([\mathrm{x5}]\,,\,\mathrm{e}\right)\cdot 0.00719\end{aligned}$$

Optimizable Parameters

a	0.0
b	0.0
c	0.0
d	0.0
e	0.0
f	0.0
g	0.0
h	0.0
i	0.0