

$$\begin{array}{c}
 \begin{array}{c} \text{m}_1 \\ \vdots \\ \text{m}_n \end{array}
 \end{array}
 \begin{array}{c}
 \text{metabolic} \\ \text{reactions}
 \end{array}
 \begin{array}{c}
 \text{production of} \\ \text{catalytic elements}
 \end{array}
 \begin{array}{c}
 \text{target} \\ \text{production/degradation}
 \end{array}
 \begin{array}{c}
 \left[\begin{array}{c} \vdots \\ \vdots \\ \vdots \end{array} \right]
 \end{array}
 \begin{array}{c}
 \text{diag}(1 \quad \quad \quad 1 \quad \mu \quad \quad \quad \mu \quad 1 \quad 1 \quad \mu \quad \mu) \\
 \left[\begin{array}{c} \text{nu}_1 \quad \text{nu}_R \quad \text{e}_1 \quad \text{e}_E \quad \text{m}_1 \quad \text{m}_M \quad \text{t}_1 \quad \text{t}_T \end{array} \right]^T = 0
 \end{array}
 \end{array}$$