Title (en)

PREDICTING THE METABOLIC CONDITION OF A CELL CULTURE

Title (de)

VORHERSAGE DES METABOLISCHEN ZUSTANDS EINER ZELLKULTUR

Title (fr)

PRÉDICTION DE L'ETAT MÉTABOLIQUE D'UNE CULTURE CELLULAIRE

Publication

EP 3732485 A1 20201104 (DE)

Application

EP 19700004 A 20190102

Priority

- EP 17211217 A 20171229
- EP 2019050006 W 20190102

Abstract (en)

[origin: WO2019129891A1] The invention relates to a method for predicting the metabolic condition of a cell culture of cells of a specific cell type. The method comprises providing (102) a metabolic model (402) of a cell of the specific cell type and carrying out the following steps at each of a plurality of points in time during the cultivation of the cell culture: receiving (106) measured concentrations of several extracellular metabolites and a measured cell density in the culture medium; inputting (108) the received measured values as input parameter values into a trained machine learning program logic – MLP (218); predicting (110) extracellular flows (408) of the extracellular metabolites at a future point in time by means of the MLP; carrying out (112) a metabolic flow analysis for calculating the intracellular flows at the future point in time on the basis of the predicted extracellular flows and the stoichiometric equations of the metabolic model.

IPC 8 full level

G01N 33/50 (2006.01)

CPC (source: EP US)

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