

ABSTRACT

A cell culture solution metabolite concentration determination method and apparatus, a computer device and a computer-readable storage medium. The method includes: acquiring spectral data of a detection-target cell culture solution at a target time point and a preset cell culture environmental parameter, the spectral data having a preset length; and inputting the spectral data and the preset cell culture environmental parameter into a target concentration prediction model to obtain a corresponding metabolite concentration prediction result of the detection-target cell culture solution at the target time point. The target concentration prediction model includes a plurality of data feature extraction modules, and the plurality of data feature extraction modules are respectively configured to perform feature extraction on the spectral data and the preset cell culture environmental parameter along different feature analysis dimensions. The apparatus corresponding to the method includes a data acquisition unit and a concentration prediction unit. The computer device and the computer-readable storage medium include a processor for executing the method, and a computer program. Data feature analysis is performed based on multi-modal data of the cell culture solution under test, such that a more accurate concentration prediction result of the cell culture solution can be obtained.