

Abstract

A method, an apparatus and a system for the whole-process optimization of molecular-level oil refinery processing, and a storage medium. According to an embodiment of the present invention, for mixed products obtained by means of prediction from the simulation of a molecular-level crude oil processing process, when the physical properties of any mixed product do not meet any preset standard, or target parameters of the mixed products do not meet preset conditions, the proportions of different fractions introduced into respective petroleum processing apparatuses are adjusted, operating parameters in a product prediction model are adjusted, and mixing rules for mixing predicted products are adjusted, so as to obtain mixed products anew until the physical properties of all the mixed products meet any preset standard, and the target parameters of all the mixed products meet the preset conditions; and final predicted products are predicted by adjusting the proportions of the fractions for secondary processing. The production efficiency is improved by means of the simulation optimization of a production process.

Fig.1