

[DOWNLOAD](#)

Process development for plant-based extract production

By Markus Kaßing

Shaker Verlag Feb 2012, 2012. Buch. Book Condition: Neu. 211x149x12 mm. Neuware - In this thesis a structured and standardized approach for the process design of plant-based extractions has been developed. This approach is founded on laboratory experiments performed in a standard apparatus to determine extraction kinetics for the best solvent and the targeted solute with regard to the solubility, selectivity as well as factors like regulatory constraints and consumer demands. As a benchmark, two different raw materials, pepper berries and vanilla beans, with different physical properties of the target compounds and the raw materials have been examined to cover a wide range of typical botanical variable feeds. Furthermore, mass balances have been set up for water, solvent, raw material and target compounds on a laboratory scale. A rigorous model supported by botanical investigations has been developed to predict percolation results. After determining the desorption isotherm the model has been validated with short residence time percolation experiments. With the aid of this validated model percolation experiments with long residence times can be predicted and different process scenarios calculated. A combination of design of experiments and rigorous modelling in combination with a standard equipment and experimental model parameter determination provides a...



[READ ONLINE](#)

[7.08 MB]

Reviews

Thorough manual for pdf lovers. I am quite late in start reading this one, but better then never. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- **Kaycee McGlynn**

The very best pdf i possibly study. It generally will not expense excessive. You wont really feel monotony at anytime of the time (that's what catalogs are for concerning should you ask me).

-- **Prof. Owen Sporer**