



OPTIMIZE PARTICLE SUSPENSION STABILITY BY THE HANSEN APPROACH USING THE TURBISCAN TECHNOLOGY

Introduction

Formulating stable particle suspensions is of great interest for academic and industrials as it allows to enhance the properties and the lifetime of their products. Industrial fields which are interested in suspension stability are numerous and extensive ranging from cosmetics and pharmaceuticals to agriculture and energy. Overall, the choice of the stabilization medium is the key factor to avoid particle agglomeration before adding additives (surfactants, polymers, ...etc.) which are, most of the time, quite expensive. Methods have been already developed to predict this stabilization medium such as the Hansen Parameters (HP). The aim of this note is to demonstrate that accurate determination of the HP of particles, Titanium Dioxide (TiO_2) in this study, can be obtained using the TURBISCAN technology. Knowing the HP of particles, it is quite easy **to predict greener and cheaper solvents to optimize particles formulation** regarding the content of costly stabilizing additive or product regulatory requirements evolution.