

PC 60

SURFACE FEATURES OF COLLOIDS AS EVALUATED BY ELECTROKINETICS

J. Škvarla

Technical University of Košice, BERG Faculty, Letná 9, 04200 Košice, Slovakia

Electrophoresis is an important tool allowing us to determine surface electric parameters of seemingly ideal surfaces of colloids from the velocity of their movement in an electric field by applying relatively simple theories. However, such theories often fail to function correctly due to a nonideal character of „model“ or „hard“ colloids. More complicated electrophoretic theories have been developing therefore in order to account various surface features of nonideal or „soft“ colloids. The aim of the contribution is to show that the latter theories, irrespective of whether being applied to various polymer or, say, metal oxide colloids, not only respect the colloids' surface nonidealities but also identify them. The new information in conjunction with other techniques can be thus used among other things to explain deviations in short-range interactions between colloidal particles (aggregation) in general.