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Titolo	The Application of Biofluid Mechanics : Boundary Effects on Phoretic Motions of Colloidal Spheres // by Po-Yuan Chen
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Soggetti	Biophysics Biological physics Biomedical engineering Electrophoresis Physical chemistry Amorphous substances Complex fluids Fluid mechanics Biological and Medical Physics, Biophysics Biomedical Engineering and Bioengineering Physical Chemistry Soft and Granular Matter, Complex Fluids and Microfluidics Engineering Fluid Dynamics
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- Diffusiophoresis of Spherical Colloidal Particles Parallel to the Plane Walls -- Penetration Motion of the Spherical Vesicle Particle Parallel to Plane Walls -- Thermocapillary Motion of Pherical Droplets Parallel to Plane Walls -- Thermophoresis Motion of Spherical Aerosol Particles Parallel to Plane Walls -- General Discussions and Conclusions.
Sommario/riassunto	"The Application of Biofluid Mechanics: Boundary Effects on Phoretic Motions of Colloidal Spheres" focuses on the phoretic motion behavior of various micron- to nanometer-size particles. The content of this

book is divided into two parts: one on the concentration gradient-driven diffusiophoresis and osmophoresis, and one on thermocapillary motion and thermophoretic motion driven by temperature gradient. Diffusiophoresis and osmophoresis are mainly used in biomedical engineering applications, such as drug delivery, purification, and the description of the behavior of the immune system; thermocapillary motion and thermophoretic motion are applied in the field of semiconductors, as well as in suspended impurities removal. The book also provides a variety of computer programming source codes compiled using Fortran for researchers' future applications. This book is intended for chemical engineers, biomedical engineers and scientists, biophysicists, and fundamental chemotaxis researchers. Dr. Po-Yuan Chen is an Assistant Professor at the Department of Biological Science and Technology, China Medical University, Taichung, Taiwan.
