

Contents

Preface *iii*

Contributors *vii*

1. Uniform and Thermodynamically Consistent Interpretation of Adsorption Isotherms *József Tóth* 1
2. Adsorption on Heterogeneous Surfaces *Małgorzata Borówko* 105
3. Models for the Pore-Size Distribution of Microporous Materials from a Single Adsorption Isotherm *Salil U. Rege and Ralph T. Yang* 175
4. Adsorption Isotherms for the Supercritical Region *Li Zhou* 211
5. Irreversible Adsorption of Particles *Zbigniew Adamczyk* 251
6. Multicomponent Adsorption: Principles and Models *Alexander A. Shapiro and Erling H. Stenby* 375
7. Rare-Gas Adsorption *Angel Mulero and Francisco Cuadros* 433
8. *Ab Fine* Problems in Physical Chemistry and the Analysis of Adsorption–Desorption Kinetics *Gianfranco Cerofolini* 509
9. Stochastic Modeling of Adsorption Kinetics *Seung-Mok Lee* 537
10. Adsorption from Liquid Mixtures on Solid Surfaces *Imre Dékány and Ferenc Berger* 573

11. Surface Complexation Models of Adsorption: A Critical Survey in the Context of Experimental Data 631
Johannes Lützenkirchen
12. Adsorption from Electrolyte Solutions 711
Etelka Tombácz
13. Polymer Adsorption at Solid Surfaces 743
Vladimir Nikolajevich Kislenko
14. Modeling of Protein Adsorption Equilibrium at Hydrophobic Solid–Water Interfaces 803
Kamal Al-Malah
15. Protein Adsorption Kinetics 847
Kamal Al-Malah and Hasan Abdellatif Hasan Mousa

Index 871