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| Autore | Marmisollé Waldemar A |
| Titolo | Binding Phenomena : General Description and Analytical Applications / / by Waldemar A. Marmisollé, Dionisio Posadas |
| Pubbl/distr/stampa | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023 |
| ISBN | 3-031-39736-3 |
| Edizione | [1st ed. 2023.] |
| Descrizione fisica | 1 online resource (190 pages) |
| Collana | Physical Chemistry in Action, , 2197-4357 |
| Altri autori (Persone) | PosadasDionisio |
| Disciplina | 541.224 |
| Soggetti | Chemistry, Physical and theoretical<br>Analytical chemistry<br>Distribution (Probability theory)<br>Physical Chemistry<br>Analytical Chemistry<br>Theoretical Chemistry<br>Distribution Theory |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | Introduction -- Binding to simple substrates with one binding site -- One substrate with two different binding sites. Competitive binding. Two different binding species. Two different binding substrates -- Titration of simple substrates -- Continuous Distribution Functions. Cumulative and Density Distribution Functions. Known Examples -- Elements of adsorption on heterogeneous substrates -- Theoretical bases for the interpretation of the titration curves of macromolecules -- Acid-Base equilibria at complex substrates. Polyacids and Polybases -- Acid-Base Titration of complex substrates -- The Acid-Base Behaviour of Polyampholytes. The Case of Colloidal Oxides -- Titration of polyampholytes. Polyzwitterions and other examples -- Electron titrations of electrochemically active Macromolecules -- Appendices. |
| Sommario/riassunto | This book presents a unified description of binding equilibrium for a wide variety of systems focusing on acid-base and coordination chemistry, adsorption at interfaces, and electron binding in electrochemistry. It overviews more complex phenomena such as |

competitive binding to different sites and of different ligands. Multiple sites such as those occurring in macromolecules, colloidal oxides, humid substances, and proteins are briefly discussed and many experimental results for these types of systems are analyzed. Titrations and consideration of the distribution of binding constants are also presented. The book is mainly directed at undergraduate/graduate students of chemistry, biology, and earth sciences. It is supplementary to the standard physical and analytical chemistry courses and will help both students and teachers get a more in-depth knowledge and understanding of the systems analyzed.