
**Título:** Modern Electrochemistry 2a. Fundamentals Of Electrodics

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**Precio:** $1744.00

**Editorial:**

**Año:** 2000

**Tema:**

**Edición:** 2ª

**Sinopsis**

**ISBN:** 9780306461675

This long-awaited and thoroughly updated version of the classic text (Plenum Press, 1970) explains the subject of electrochemistry in clear, straightforward language for undergraduates and mature scientists who want to understand solutions. Like its predecessor, the new text presents the electrochemistry of solutions at the molecular level. The Second Edition takes full advantage of the advances in microscopy, computing power, and industrial applications in the quarter century since the publication of the First Edition. Such new techniques include scanning-tunneling microscopy, which enables us to see atoms on electrodes; and new computers capable of molecular dynamics calculations that are used in arriving at experimental values.
A description of the electrochemical stage - the high field region near the interface - is the topic of Chapter 6 and involves a complete rewrite of the corresponding chapter in the First Edition, particularly the various happenings which occur with organic molecules which approach surfaces in solution. The chapter on electrode kinetics retains material describing the Butler-Volmer equation from the First Edition, but then turns to many new areas, including electrochemical theories of potential-dependent gas catalysis. Chapter 8 is a new one devoted to explaining how electrochemists deal with the fast-changing nature of the electrode surface. Quantum Mechanics as the basis to electrode kinetics is given an entirely new look - up to and including considerations of bond-breaking reactions.