



websites of note

by Zoltan Nagy

History of Electrodeposition

Some of the very early papers describing the discovery of electroplating in various forms can be found at this site. Several papers reported rough (dendritic/mossy) electrodeposition of metals almost immediately after Volta's discovery of the "pile." The first ones were probably Nicholson and Carlisle, and independently, Cruickshank. The first real electroplating, gold plating of coins, was reported soon thereafter by Brugnatelli. Decades later, the discovery of "electroforming or electrotyping" was reported independently by De la Rue and Jacobi.

- Ernest B. Yeager Center for Electrochemical Sciences (YCES)
- <http://electrochem.cwru.edu/estir/history.htm>

Electroplating

A book chapter on electroplating, describing the basic electrochemistry background, surface preparation, direct current electrodeposition, pulse plating, laser-induced metal deposition. Types of electroplating processes: mass plating, rack plating, continuous plating, in-line plating. Types of metal coatings: sacrificial coatings, decorative protective coatings, engineering coatings, minor metal coating, unusual metal coating, alloy coatings, multilayered coatings, composite coatings, conversion coatings, anodized coatings. Related processes: electroless deposition (autocatalytic plating), immersion plating, electroforming.

- H. Lou (U. Lamar, Beaumont, TX) and Y. Huang (Wayne State U., Detroit, MI)
- http://chem1.eng.wayne.edu/~yhuang/Papers/Book_Plating_ECHP.pdf

Application Notes

A large collection of application notes, including galvanostatic and potentiostatic techniques, impedance spectroscopy, corrosion measurements, testing of batteries, fuel cells, supercapacitors, etc.; handbook of electrochemical impedance spectroscopy; interactive transfer function library; interactive equivalent circuit library; and interactive faradaic impedance library.

- Bio-Logic USA
- <http://www.bio-logic.info/potentiostat/notes.html#an>

About the Author

ZOLTAN NAGY is a semi-retired electrochemist. After 15 years in a variety of electrochemical industrial research, he spent 30 years at Argonne National Laboratory carrying out research on electrode kinetics and surface electrochemistry. Presently he is at the Chemistry Department of the University of North Carolina at Chapel Hill. He welcomes suggestions for entries; send them to nagyz@email.unc.edu.

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