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Thin films: preparation, characterization, applications. M.P. Soriaga, J. Stickney, L.A. Bottomley, Y.-G. Kim (eds)

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This book contains the proceedings of a symposium on Thin Films: Preparation, Characterization, Applications of an American Chemical Society meeting, April 1–5, 2001 in San Diego, California, USA. It contains 27 chapters (essential research articles) by 99 international authors who are leaders in their areas of study. For the most part, the chapters are not organized or grouped according to the three subheadings of the title of the book. Roughly 90% of the chapters deal with the combination of preparation and characterization of specific thin film materials and there are only a few which include applications of the film in question. The book covers virtually every type of thin film material (organic and inorganic) that comes to mind, as well as every possible type of morphology and organization of the films. Mentioning of these in detail in this review would be essentially a rewrite of the table of contents and index, and thus an unnecessary use of space in the journal. The format of each is not uniform: type spacing, font and position of figures (in text or at chapter end as in a preprint), abstract or not, etc. Furthermore, the index is far from comprehensive. Each individual chapter is well written and in general “pitched” a level so

that the reader who is not familiar or experienced in the specific subject can easily understand the science discussed. Each chapter is well referenced so that the reader can follow up the discussion to whatever depth is desired. About one-third of the chapters are not related to electrochemically prepared or characterized films.

The wide diversity of thin film types are not drawbacks but are the strength (or value) of this book. As the editors point out in the preface of the text: “The purpose of this book is not only to look at the diversity...., but also to see the commonality....”. This comes across very well. Electrochemists working with a specific type of thin film for electrocatalysis, sensor development, etc., will probably find some other system in this book that might better solve their problem. Furthermore, any electrochemist working with “modified” electrodes should have this book in their laboratory collection of reference books because it contains example uses of virtually every type of technique, both common and uncommon, that are available to “characterize” thin films (and surfaces). This reviewer has already consulted the book on two or three occasions for such information.